

**SAT-A55** RM-Y802

**SAT-B55** RM-Y139

**SAN-18D3**

# SERVICE MANUAL

*U.S. Model*



RM-Y802



SAN-18D3



SAT-A55

**DIGITAL SATELLITE RECEIVER/SATELLITE ANTENNA**



**SONY®**

## SPECIFICATIONS

### FOR DIGITAL SATELLITE RECEIVER:

<b>Input Jacks</b>	UHF/VHF 75 ohm F-type Satellite Antenna 75 ohm F-type RF Remote Antenna (SAT-A55 only) AC Power (120V, 60 Hz)						
<b>Output Jacks</b>	S-VIDEO OUT 4-pin mini DIN VIDEO (RCA jacks) (2) AUDIO R/L (RCA jacks) (2) VHF (SAT)/UHF 75 ohms F-Type Low Speed Data, 9-pin D-Sub Female Telephone Line (RJ11) VCR control (1) VCR Controller (or monoaural cable for Sony SmartFile VCRs) Optical output (1) (SAT-A55 only)						
<b>Input Frequency</b>	950 - 1450 Mhz / 950-2150 Mhz						
<b>Power Requirements</b>	120V AC, 60 Hz						
<b>Power Consumption</b>	20 W max.						
<b>Dimensions (w/h/d)</b>	11 x 2 <sup>5</sup> / <sub>8</sub> x 9 inches 280 x 66.5 x 228.5 mm						
<b>Weight</b>	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><u>SAT-A55</u></td> <td style="text-align: center;"><u>SAT-B55</u></td> </tr> <tr> <td style="text-align: center;">Set: 6.0 lb (2.7 kg)</td> <td style="text-align: center;">Set: 5.4 lb (2.5 kg)</td> </tr> <tr> <td style="text-align: center;">Unit: 3.6 lb (1.6 kg)</td> <td style="text-align: center;">Unit: 3.4 lb (1.5 kg)</td> </tr> </table>	<u>SAT-A55</u>	<u>SAT-B55</u>	Set: 6.0 lb (2.7 kg)	Set: 5.4 lb (2.5 kg)	Unit: 3.6 lb (1.6 kg)	Unit: 3.4 lb (1.5 kg)
<u>SAT-A55</u>	<u>SAT-B55</u>						
Set: 6.0 lb (2.7 kg)	Set: 5.4 lb (2.5 kg)						
Unit: 3.6 lb (1.6 kg)	Unit: 3.4 lb (1.5 kg)						
<b>Supplied Accessories</b>	Remote Commander RM-Y802 (SAT-A55) Remote Commander RM-Y139 (SAT-B55) Size AA Batteries (2) Access Card (1) Audio/Video Cable (1) S-VIDEO Cable (1) (SAT-A55 only) Coaxial RF Cable (1) RF Remote Antenna (1) (SAT-A55 only) VCR Controller (1) Telephone Cable (1) AC Power Cord (1)						

#### Optional Sony-brand DSS Accessories

Local TV Antenna ANJ-AA1  
Installation Kit ANJ-DS2  
Amplifier EAC-DA1  
Diplexer EAC-DD1  
Voltage Switch ECA-DV2  
RF Universal Remote Commander  
Remote Control RM-Y802

*Design and specifications subject to change without notice.*

**FOR SATELLITE ANTENNAS:**

<b>Input Frequency</b>	12.2 - 12.7 GHz	<b>Supplied Accessories</b>	Weatherboot 2pcs Signal Seeker 1pc Snap-in Clip (dual type) 1pc Bolt for Ground Terminal 1pc Bolt for LNB Support Arm 2pcs
<b>Output Frequency</b>	950 - 1450 MHz		
<b>Output Connector</b>	F-Type Female		
<b>Power Consumption</b>	3.0 W max.		
<b>Supply Voltage</b>	DC + 10.5 - 14.0 V for RHCP DC + 15.5 - 21.0 V for LHCP	<b>Optional Accessories</b>	Installation Kit ANJ-DS2 Amplifier EAC-DA1 Diplexer EAC-DD1 Voltage Switch ECA-DV2 Multi-Room A/V Distribution System MDR-D1 Coaxial Cable 25' SAK-C25 Coaxial Cable 75' SAK-C75 Flat Cable SAK-F1
<b>Dimensions (w/h/d)</b>	18 <sup>5/8</sup> x 31 x 18 <sup>5/16</sup> inches 473 x 787 x 643 mm		
<b>Weight</b>	8 lbs 6 oz (3.8 kg)		

**SAFETY CHECK-OUT**

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage using one of the methods listed.

**LEAKAGE TEST**

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2 VAC range are suitable. (See Figure 1)

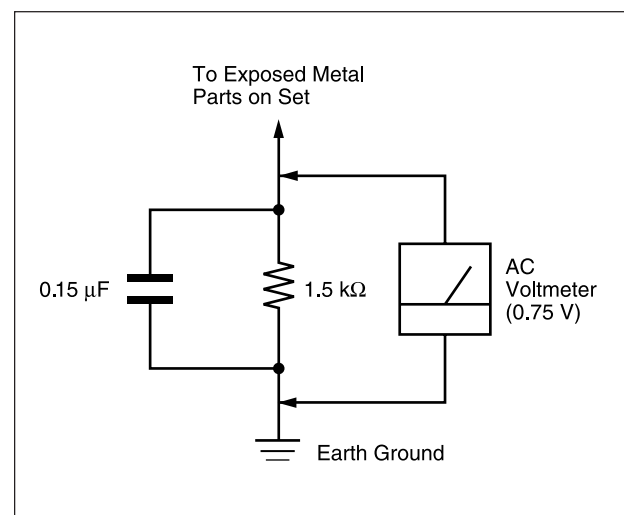


Figure 1. Using an AC voltmeter to check AC leakage.

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**SAFETY-RELATED COMPONENT WARNING !!**

Components identified by shading and the critical mark on the schematic diagrams, exploded views, and in the parts list are critical for safe operation. Replace these with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. Circuit adjustments that are critical for safe operation are identified in this manual. Follow these procedures whenever critical components are replaced or improper operation is suspected.



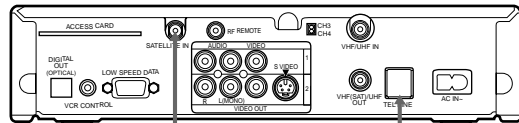
## SECTION 1 GENERAL

### Step 2: Connecting the Satellite Dish Antenna and Telephone Line

The SATELLITE IN jack sends power to, and receives satellite signals from, the Satellite Dish Antenna. The telephone line connection periodically sends information about your receiver and Access Card to your service provider.

Connections are shown using the SAT-A55 model. Any differences in connecting the SAT-B55 model are noted in the text.

Digital Satellite Receiver



- 1 Connect the SATELLITE IN jack to your Satellite Dish Antenna using RG-6 coaxial cable.
- 2 Connect the TEL LINE jack to a telephone line wall jack using the supplied telephone cord.

RG-6 Coaxial Cable from Satellite Dish Antenna

Telephone Cord

**Note**  
• Your Satellite Dish Antenna Installation Instructions provides detailed instructions on how to install RG-6 coaxial cable from your Satellite Dish Antenna.

**CAUTION**  
Only connect your authorized Satellite Dish Antenna to the SATELLITE IN jack as described in the Installation Instructions. Connecting any other equipment to this jack could result in damage to the equipment and/or receiver.

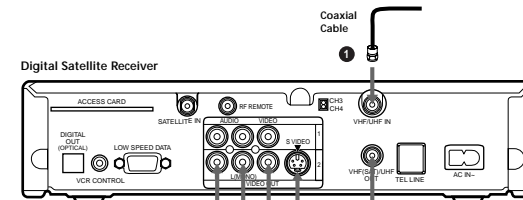
The operating instructions mentioned here are partial abstracts from the Operating Manual. The page numbers referenced here reflect those of the Operating Instruction Manual.

### Step 3: Connecting Your TV

Connect your TV to the Digital Satellite Receiver as shown below. Refer to your TV's instruction manual for more information.

- 1 If you have a local TV antenna or cable company service  
Connect it to the VHF/ UHF IN jack on your Digital Satellite Receiver using a coaxial cable or RF adapter (not supplied).  
You can view local stations using your TV controls.

**Note**  
You must use the VHF(SAT)/UHF OUT jack to connect to your TV or VCR when a local TV antenna or cable company service is connected to the VHF/ UHF IN jack (see "2c" below and on page 10).



- 2a If your TV has A/V input jacks  
Connect the VIDEO OUT jacks on your Digital Satellite Receiver to the A/V input jacks on your TV using the supplied A/V cable. (Be sure to match the colors on the jacks with the colored plugs on the A/V cable.)

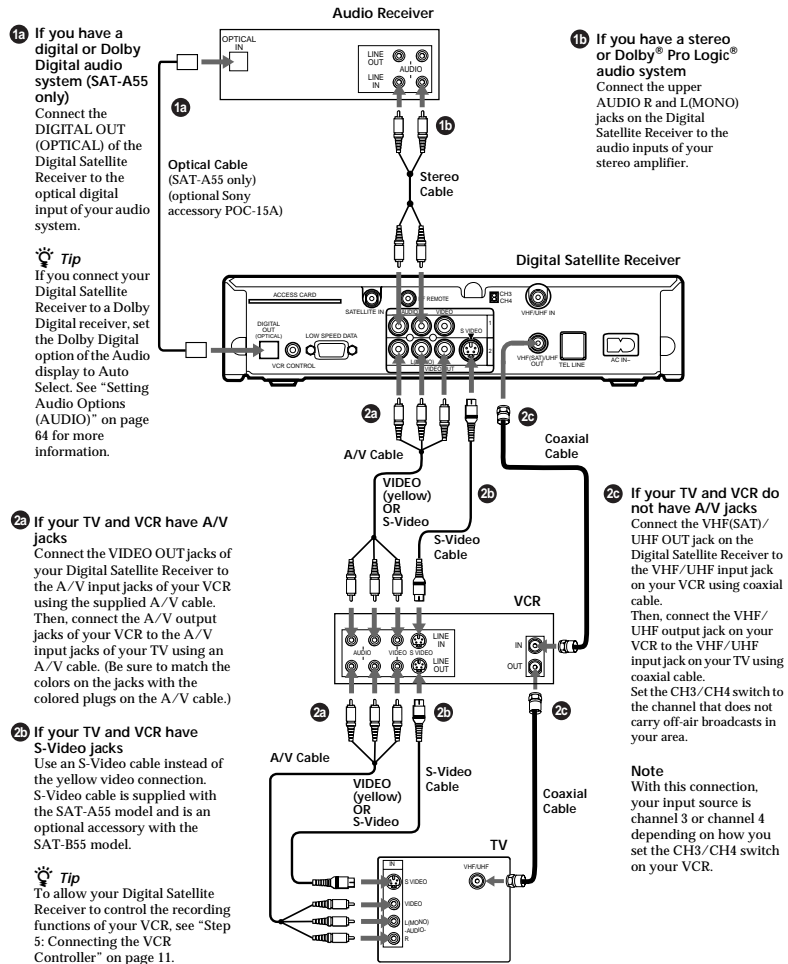
- 2b If your TV has an S-Video input  
Use an S-Video cable instead of the yellow video connection. S-Video cable is supplied with the SAT-A55 model and is an optional accessory with the SAT-B55 model.  
If your TV has only one audio input, connect it to the L(MONO) jack on the receiver.

- 2c If your TV does not have A/V jacks  
Connect the VHF(SAT)/UHF OUT jack to the VHF/ UHF input jack on your TV using coaxial cable.  
Set the CH3/ CH4 switch to the channel that does not carry off-air broadcasts in your area.

**Note**  
With this connection, your input source is channel 3 or channel 4 depending on how you set the CH3/ CH4 switch on the receiver.

## Step 4: Adding a VCR and Audio System

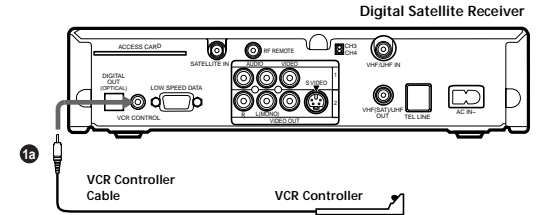
You can record programs by adding a VCR. You can also connect your Digital Satellite Receiver to an audio system for enhanced sound enjoyment.



## Step 5: Connecting the VCR Controller

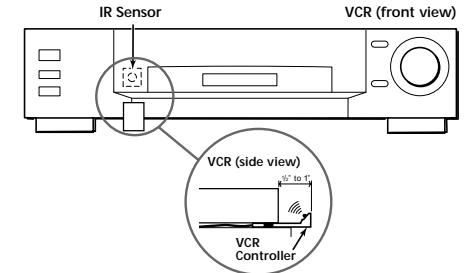
Connect the VCR Controller to allow the Timer & Rec feature to automatically operate your VCR. See "Setting Up the VCR Control Feature" on page 26 for information about setting up the Digital Satellite Receiver to work with your VCR.

- 1a** To allow the Digital Satellite Receiver to control your VCR  
Connect the VCR Controller to the VCR CONTROL jack on the receiver.



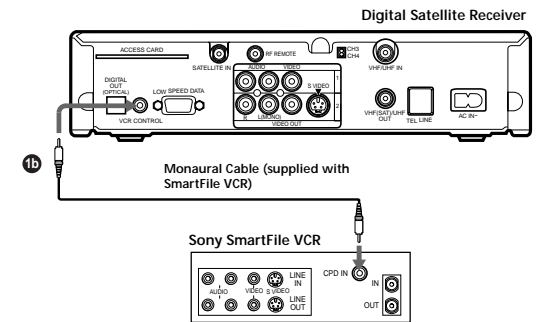
**In front of the VCR**  
Place the VCR Controller under and in front of the VCR. The VCR Controller must extend just in front of the infrared sensor of the VCR.

**Tip**  
If the infrared sensor is not marked on your VCR, shine a flashlight into the front panel of the VCR to locate the sensor.



## Connecting a Sony SmartFile™ VCR

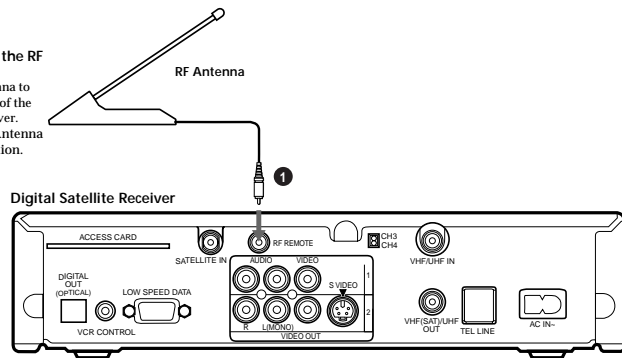
- 1b** If you are using a Sony SmartFile VCR to take advantage of the Program Data Download feature  
Use this connection instead of the VCR Controller connection. For information about setting up the VCR Control feature, see page 26. For details about the Program Data Download feature, refer to your SmartFile VCR Operating Instructions.



## Step 6: Connecting the RF Antenna (SAT-A55 only)

With the SAT-A55 model you can connect the RF Antenna and operate the Digital Satellite Receiver when installed in a cabinet or from another room in your house using the remote control. See page 32 for information about how to set up the Digital Satellite Receiver to use the RF feature.

- 1** If you want to use the RF feature  
 Connect the RF Antenna to the RF REMOTE jack of the Digital Satellite Receiver. Then, place the RF Antenna in a convenient location.

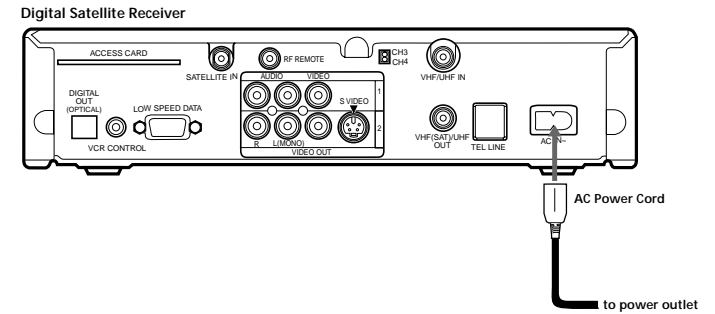


### Notes

- Do not place the RF Antenna directly on top of the Digital Satellite Receiver or any other metal object. For best results, place the RF Antenna in a visible location.
- The operating range of the remote control is about 100 feet when using the RF feature. This may decrease due to ambient reception conditions, weak batteries, etc.

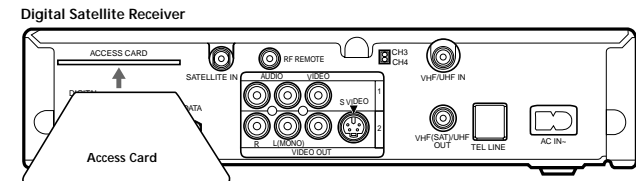
## Step 7: Connecting the AC Power Cord

After all other connections are complete, connect the AC Power Cord to the Digital Satellite Receiver. Then connect the AC Power Cord to a power outlet.



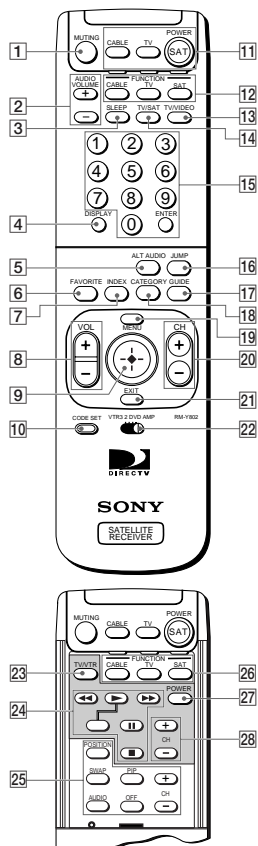
## Step 8: Inserting the Access Card

After you insert the Access Card and your Satellite Dish Antenna is installed, you are ready to begin enjoying digital satellite programming. Call DIRECTV at 1-800-DIRECTV (347-3288) to begin service.



## Viewing Pictures From Your DIRECTV PLUS™ Digital Satellite Receiver Using Your Remote Control

### RM-Y802 Remote Control (SAT-A55 model)



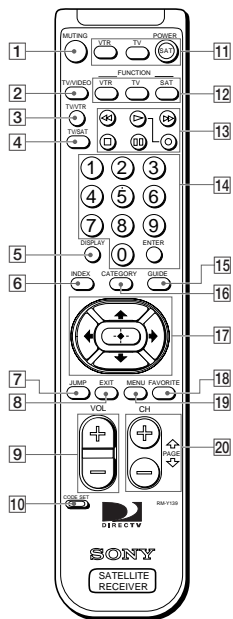
- 1** **MUTING button**  
Mutes the volume. Press again to restore the volume. To operate your TV, you must first set up the remote control (see page 65).
- 2** **AUDIO VOLUME buttons**  
Adjust the volume of your audio receiver. To operate your audio receiver, you must first set up the remote control (see page 65).
- 3** **SLEEP button**  
Sets the TV to turn off automatically after a certain amount of time (if your TV has the Sleep feature). To operate your TV, you must first set up the remote control (see page 65).
- 4** **DISPLAY button**  
Opens the program information display for the current program.
- 5** **ALT AUDIO button**  
Switches among the available audio broadcasts.
- 6** **FAVORITE button**  
Opens the Favorite Stations guide.
- 7** **INDEX button**  
Opens the Station Index.
- 8** **VOL buttons**  
Adjust the volume. To operate your TV, you must first set up the remote control (see page 65).
- 9** **Joystick**  
Moving the joystick up, down, left, and right moves the highlight in on-screen displays. Press the joystick to select the highlighted item.
- 10** **CODE SET button**  
Lets you program the remote control to operate your TV and other audio/video equipment (see page 65).
- 11** **POWER buttons**  
Turn on and off the Digital Satellite Receiver and other audio/video equipment. To operate your TV and other audio/video equipment, you must first set up the remote control (see page 65).
- 12** **FUNCTION buttons**  
Select the equipment (CABLE, TV or SAT) that you want to operate. The indicators light up to show which device the remote control is operating. To operate your TV or cable box, you must first set up the remote control (see page 65).
- 13** **TV/VIDEO button**  
Switches between the various inputs of your TV. To operate your TV, you must first set up the remote control (see page 65).
- 14** **TV/SAT button**  
Switches the output of your Digital Satellite Receiver between regular TV and satellite broadcasts. To receive regular TV broadcasts, you must have a local TV antenna or cable company connection (see page 9).
- 15** **0-9 and ENTER buttons**  
Change channels directly, and enter numerical values in on-screen displays.
- 16** **JUMP button**  
Changes channels to the previously tuned channel.
- 17** **GUIDE button**  
Opens the Program Guide.
- 18** **CATEGORY button**  
Opens the Category Guide.
- 19** **MENU button**  
Opens the Main Menu.
- 20** **CH buttons**  
Change channels. When a program guide is open, pressing the CH buttons pages through the guide.
- 21** **EXIT button**  
Closes all on-screen displays including program guides and menus.
- 22** **VTR3/2/DVD/AMP switch**  
Sets the remote to operate other devices in your A/V system. To operate these other devices, you must first set up the remote control (see page 65).
- 23** **TV/VTR button**  
Switches between the TV and VTR (VCR) inputs of your TV. To operate your TV, you must first set up the remote control (see page 65).
- 24** **VCR Control buttons**  
Operate VCR features such as play, record, pause, stop, and fast wind. To operate your VCR, you must first set up the remote control (see page 65).
- 25** **PIP control buttons**  
Operate the Picture-in-picture features of your TV (if your TV has PIP). To operate your TV, you must first set up the remote control (see page 65).
- 26** **FUNCTION buttons**  
Select the equipment (CABLE, TV or SAT) that you want to operate. The indicators light up to show which device the remote control is operating. To operate your TV or cable box, you must first set up the remote control (see page 65).
- 27** **POWER button**  
Turns on or off the equipment selected with the VTR3/2/DVD/AMP switch.
- 28** **CH +/- buttons**  
Change channels in numerical order on the equipment selected with the VTR3/2/DVD/AMP switch.

**Note**  
You may need to set up the remote control to operate your other audio/video equipment. See "Setting Up the Remote Control" on page 65 for details.



## Using Your Remote Control (continued)

### RM-Y139 Remote Control (SAT-B55 model)



- 1 MUTING button**  
Mutes the volume. Press again to restore the volume. To operate your TV, you must first set up the remote control (see page 65).
- 2 TV/VIDEO button**  
Switches between the inputs of your TV. To operate your TV, you must first set up the remote control (see page 65).
- 3 TV/VTR button**  
Switches between the inputs of your VCR. To operate your VCR, you must first set up the remote control (see page 65).
- 4 TV/SAT button**  
Switches the output of your Digital Satellite Receiver between regular TV and satellite broadcasts. To receive regular TV broadcasts, you must have a local TV antenna or cable company connection (see page 9).
- 5 DISPLAY button**  
Opens the program information display for the current program.
- 6 INDEX button**  
Opens the Station Index.
- 7 JUMP button**  
Changes channels to the previously tuned channel.
- 8 EXIT button**  
Closes all on-screen displays including program guides and menus.

- 9 VOL buttons**  
Adjust the volume. To operate your TV, you must first set up the remote control (see page 65).
- 10 CODE SET button**  
Lets you program the remote control to operate your TV and other audio/video equipment (see page 65).
- 11 POWER buttons**  
Turn on and off the Digital Satellite Receiver, TV and VTR (VCR). To operate your TV or VTR (VCR), you must first set up the remote control (see page 65).
- 12 FUNCTION buttons**  
Select the equipment (SAT, TV, VTR) that you want to operate. The indicators light up to show which device the remote control is operating. To operate your TV or VTR (VCR), you must first set up the remote control (see page 65).
- 13 VCR Control buttons**  
Operate VCR features such as play, record, pause, stop, and fast wind. To operate your VTR (VCR), you must first set up the remote control (see page 65).
- 14 0-9 and ENTER buttons**  
Change channels directly and enter numerical values in on-screen displays.

- 15 GUIDE button**  
Opens the Program Guide.
- 16 CATEGORY button**  
Opens the Category Guide.
- 17 Arrow and + buttons**  
The arrow buttons move the highlight in on-screen displays. The + button selects the highlighted item.
- 18 FAVORITE button**  
Opens the Favorite Stations guide.
- 19 MENU button**  
Opens the Main Menu.
- 20 CH/PAGE buttons**  
Change channels. When a program guide is open, these buttons page through the guide.

**Note**  
You may need to set up the remote control to operate your other audio/video equipment. See "Setting Up the Remote Control" on page 65 for details.

## Troubleshooting

Problem	What you can do
<b>Poor picture quality or no picture</b>	<ul style="list-style-type: none"> <li>If you are receiving only a few stations, (only 2 or 3 channels for example), call your service provider to have your programming activated.</li> <li>Some pay per view programs may be protected by Macrovision® copy protection at the discretion of the copyright owner. You may want to connect the Digital Satellite Receiver directly to your TV.</li> <li>Check the connections to your TV and other equipment (see pages 7-13).</li> <li>Make sure that your TV and other equipment are set to the input source to which you connected your Digital Satellite Receiver, for example, channel 3 or 4, Video 1 or 2 (see pages 9-10).</li> <li>Check the Satellite Dish Antenna's signal strength (see page 23).</li> <li>Make sure the RG-6 coaxial cable is properly connected to the Satellite Dish Antenna.</li> <li>If the cable distance between the Satellite Dish Antenna and the Digital Satellite Receiver is more than 100 feet, you must use the Sony Amplifier EAC-DA1.</li> <li>Make sure your Access Card is inserted correctly (see page 13).</li> <li>Move any antenna cables that may be directly above your Digital Satellite Receiver.</li> <li>Change the setting of the CH3/CH4 switch on the back of the Digital Satellite Receiver. This could improve picture quality only if you are using the UHF/VHF IN jack of the Digital Satellite Receiver to connect a local TV antenna or cable company service.</li> </ul>
<b>Poor picture quality or no picture when it rains or snows</b>	<ul style="list-style-type: none"> <li>Heavy rain or snow may degrade the strength of the signal coming from the satellite to your Satellite Dish Antenna. To limit any negative effects during degraded conditions, make sure that your professional installer has aimed your Satellite Dish Antenna so that you are receiving a high signal strength level (see page 23, or refer to your Satellite Dish Antenna Installation Instructions).</li> </ul>
<b>You cannot turn on the unit</b>	<ul style="list-style-type: none"> <li>Make sure that the AC Power Cord is plugged in (see page 13).</li> <li>If the AC Power Cord is plugged in, unplug the AC Power Cord, wait a few minutes, then plug in the AC Power Cord again.</li> </ul>
<b>You cannot access a program</b>	<ul style="list-style-type: none"> <li>Make sure you subscribe to the station you are trying to access. Your service provider can tell you to which stations you subscribe.</li> <li>Make sure the station you are trying to access is not set to be skipped (see pages 50-51).</li> <li>Make sure the system is not locked (see page 58).</li> <li>Use the Program Guide to access the station (see page 37).</li> <li>Press the SAT FUNCTION button on the remote control before you select a channel (see page 20).</li> </ul>

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Problem	What you can do
<b>You cannot order a pay per view program</b>	<ul style="list-style-type: none"> <li>Make sure your Digital Satellite Receiver is connected to a telephone line (see page 8).</li> <li>Make sure the system is not locked (see page 58).</li> <li>Use the Program Guide to access the station (see page 37).</li> <li>If the message "Purchase information not available" appears, you must contact your service provider to order the program.</li> <li>Your Access Card may be full. If so, contact your service provider.</li> <li>It may be too late to order the program you want. If so, check for other show times (see page 45).</li> </ul>
<b>You cannot find the station of the pay per view program that you ordered</b>	<ul style="list-style-type: none"> <li>See "Checking Pay Per View Purchases" on page 59 to get information (station, start time, etc.) about programs that you have ordered.</li> </ul>
<b>You cannot cancel a pay per view order</b>	<ul style="list-style-type: none"> <li>You cannot cancel pay per view orders that you have watched. Contact your service provider for details.</li> </ul>
<b>The program highlighted in the Program Guide does not appear</b>	<ul style="list-style-type: none"> <li>Highlight and select the program. Although the program you highlight appears in the Media Window display, you must press the + button to complete your selection (see page 37).</li> </ul>
<b>You cannot see any Favorite Stations</b>	<ul style="list-style-type: none"> <li>Set up your personal Favorite Titles before you try to use the Favorite Stations guide (see page 41).</li> </ul>
<b>Locks &amp; Limits feature not working properly</b>	<ul style="list-style-type: none"> <li>Make sure that the Spending, Rating, Pay Per View, and Stations Blocked are set as you want them (see pages 53-56). Then, make sure that the system is locked (see page 57).</li> </ul>
<b>You cannot access the Locks &amp; Limits screens</b>	<ul style="list-style-type: none"> <li>The system must be unlocked before you can make changes to the Locks &amp; Limits (see page 58).</li> </ul>
<b>You cannot unlock the system</b>	<ul style="list-style-type: none"> <li>Make sure that you entered the passcode correctly. If you have lost or forgotten your passcode, contact your service provider.</li> </ul>
<b>Language of audio track is incorrect or audio track is not available</b>	<ul style="list-style-type: none"> <li>Check the default language setting. The program provider may not broadcast all of the languages in the Default Audio pop-up (see page 64).</li> <li>Some programs may not offer audio tracks.</li> </ul>

continued

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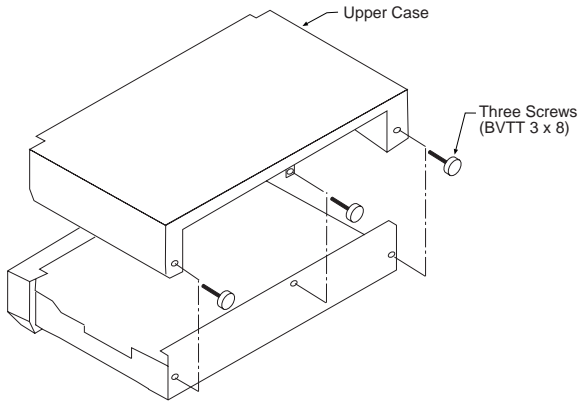
## Troubleshooting (continued)

Problem	What you can do
<b>You cannot record programs with your VCR</b>	<ul style="list-style-type: none"> <li>• Make sure that your VCR is connected correctly (see page 10).</li> <li>• If you want to use the VCR Control feature, make sure that the VCR Controller is connected correctly (see page 11). Also make sure that you have selected the correct VCR Manufacturer Code (see page 27).</li> <li>• If you are using the VCR Control feature to record a future program, make sure that your VCR is turned off before the program begins. The VCR Control feature will turn on the VCR and start recording.</li> <li>• Make sure that the program you are trying to record doesn't conflict with any Locks &amp; Limits you have set.</li> <li>• If you are trying to record a pay per view program, you must first order the program (see page 45).</li> <li>• Some pay per view programs may be protected by Macrovision copy protection at the discretion of the copyright owner. If so, it may not be possible to record these programs.</li> </ul>
<b>Access Card problems</b>	<ul style="list-style-type: none"> <li>• Make sure your Access Card is inserted correctly (see page 13).</li> <li>• Contact your service provider with any other Access Card problems.</li> </ul>
<b>Remote control does not work</b>	<ul style="list-style-type: none"> <li>• Make sure that the batteries are inserted correctly and that the batteries are not weak (see page 7).</li> <li>• Remove and then reinsert the batteries without pressing any buttons on the remote control.</li> <li>• To operate your TV or other equipment, make sure that the remote control is set up to operate that equipment (see page 65). If the batteries are removed or become weak, you may need to set up the remote control to operate other equipment again.</li> <li>• Press the FUNCTION button on the remote control of the equipment you want to operate (SAT, TV, VTR, and/or CABLE). These buttons will flash to show which equipment the remote control is set to operate.</li> <li>• SAT-A55 model only: If there is a problem when using the RF function, check that the RF Antenna is connected correctly (see page 12).</li> <li>• SAT-A55 model only: Make sure that the remote control and the Digital Satellite Receiver are both using the same security code (see page 33-34).</li> </ul>
<b>Audio noise</b>	<ul style="list-style-type: none"> <li>• SAT-A55 model only: If you connect the DIGITAL OUT jack to equipment that is not Dolby Digital compatible, set the Dolby Digital option to "off" (see page 64). Not all optical jacks on audio systems are Dolby Digital compatible.</li> </ul>
<b>"Frozen" picture or display</b>	<ul style="list-style-type: none"> <li>• Press both the GUIDE and ARROW DOWN buttons at the same time on the front panel of the Digital Satellite Receiver to reset the receiver.</li> </ul>

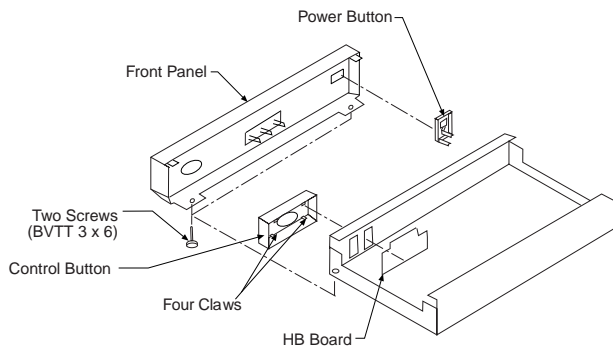
If you are unable to resolve problems with your system, see "Customer Support" inside the front cover.

## SECTION 2 DISASSEMBLY

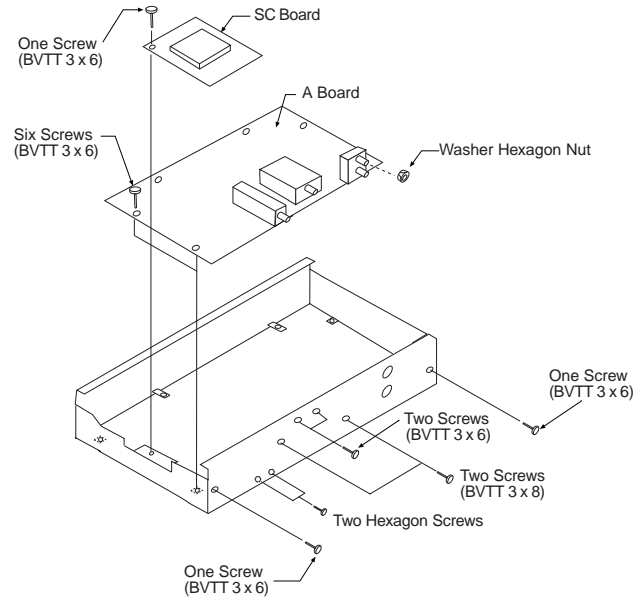
### 2-1. UPPER CASE REMOVAL



### 2-2. HB BOARD REMOVAL



### 2-3. A, SC BOARD REMOVAL



## SECTION 3 SERVICE TEST

Use the following procedure to run the service test:

1. Turn power on.
2. Enter Service Test screen by simultaneously pressing the menu button and the down arrow button on the front panel of the unit.
3. Select the TEST button on the Service Test screen. The test will diagnose and identify the following:

IRD  
 DEMOD TYPE  
 DEMOD SIGNAL  
 AV7100  
 RAM TEST  
 ROM  
 TELCO  
 VERIFIER, CAM  
 ACCESS CARD  
 CHECKSUM  
 EEPROM

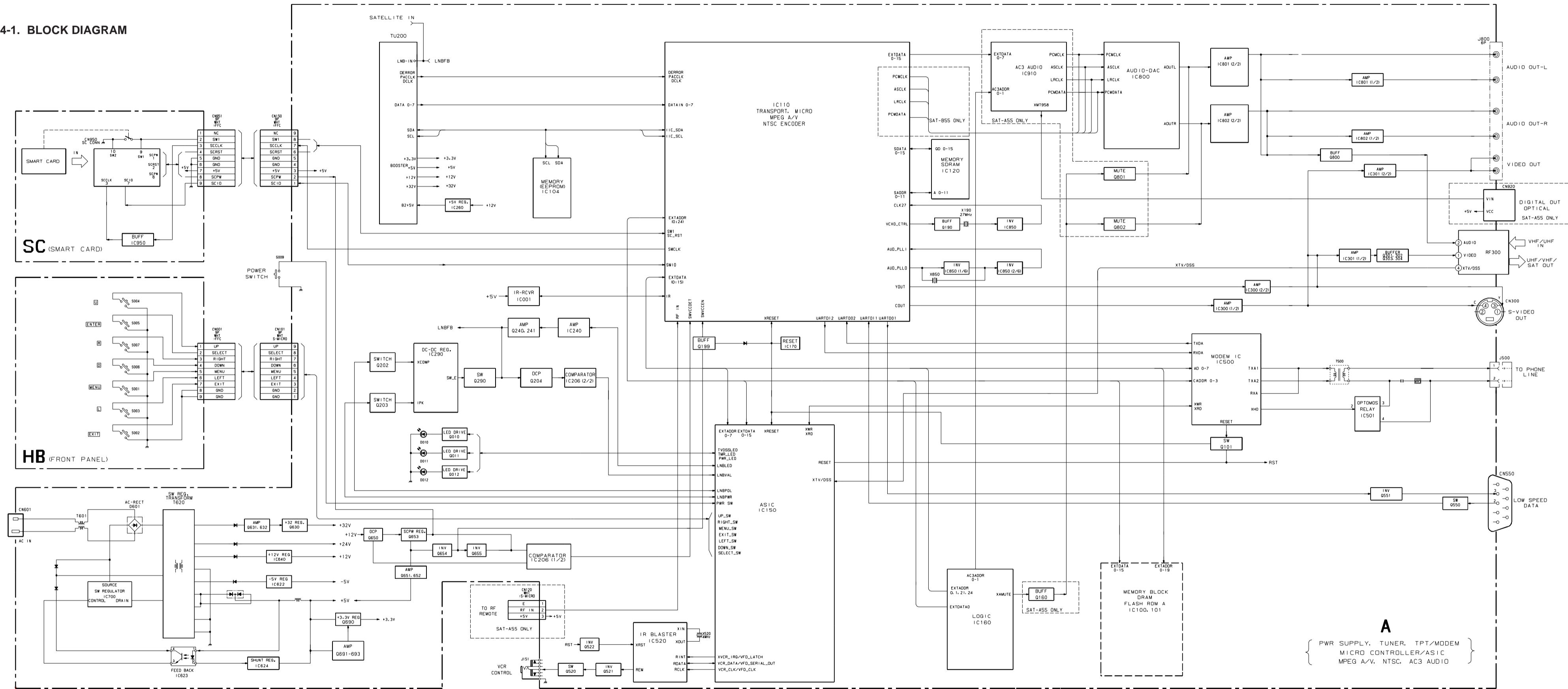
4. To reset the unit, simultaneously press the guide button and the down arrow down button on the front panel of the unit.



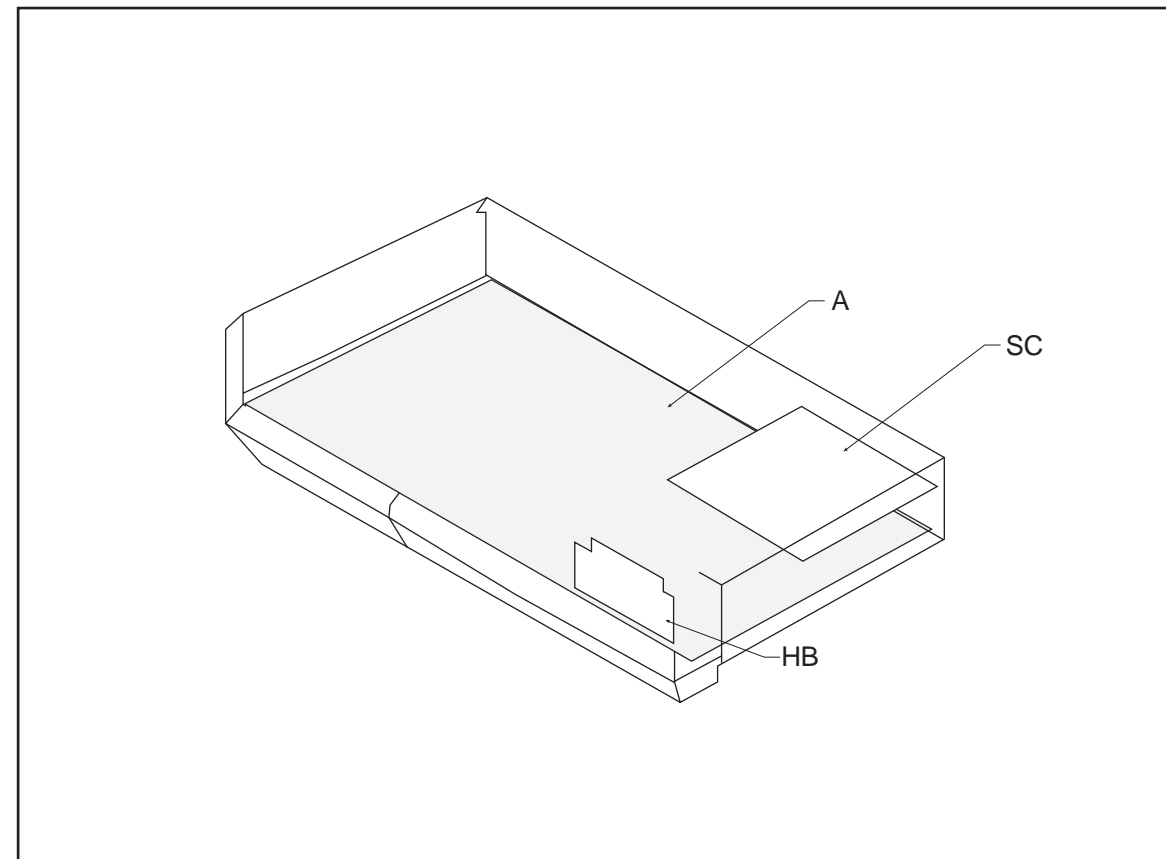


SECTION 4  
DIAGRAMS

4-1. BLOCK DIAGRAM



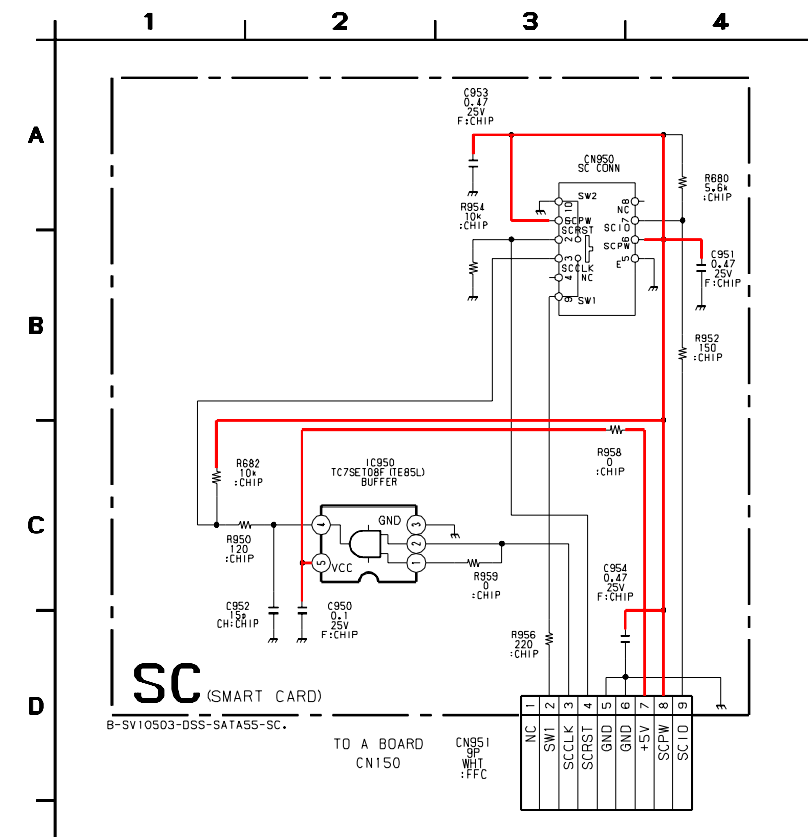
4-2. CIRCUIT BOARDS LOCATION



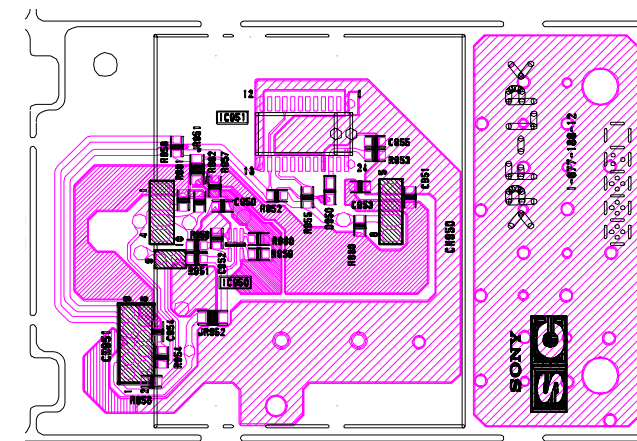
4-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  
pF:  $\mu\text{F}$  50 WV or less are not indicated except for electrolytic and tantalums.
- All electrolytics are 50V unless otherwise specified.
- Indication of resistance, which does not have one for rating electrical power, is as follows:  
Pitch: 5mm  
Rating electrical power 1/4W (CHIP: 1/10W)
- All resistors are in ohms.  
 $\text{K}\Omega = 1000\Omega$      $\text{M}\Omega = 1000\text{K}\Omega$
- : nonflammable resistor
- : fusible resistor
- $\triangle$  : internal component
- : panel designation and adjustment for repair
- $\perp$  : earth-ground
- : earth-chassis
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts
- Readings are taken with a 10M ohm digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerance.
- \* : cannot be measured
- : B + Line
- : B - Line
- : Signal path

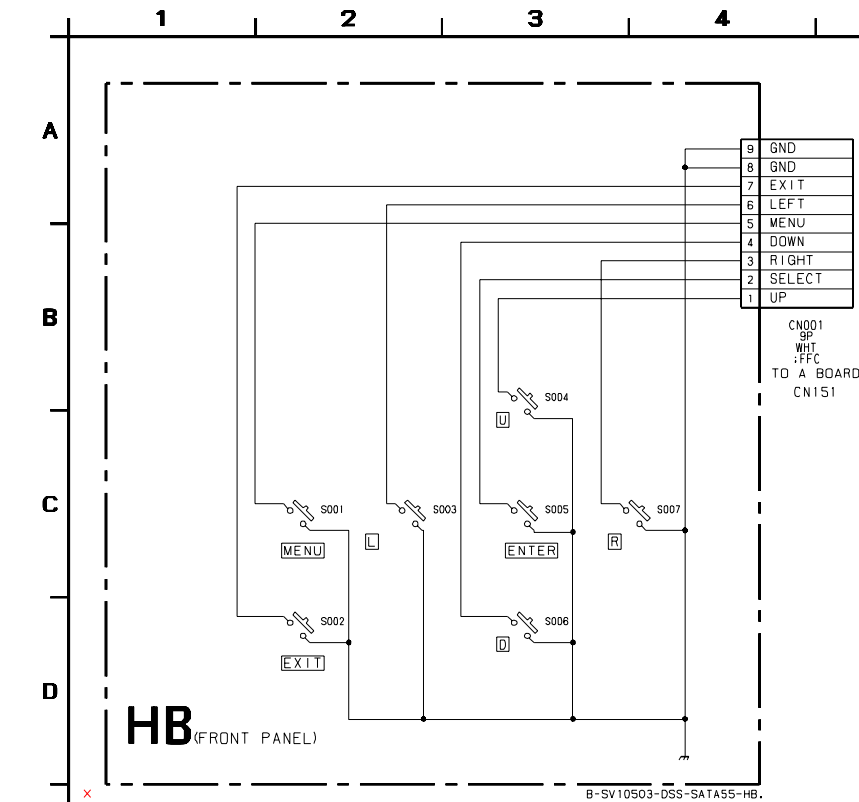
SC BOARD SCHEMATIC DIAGRAM



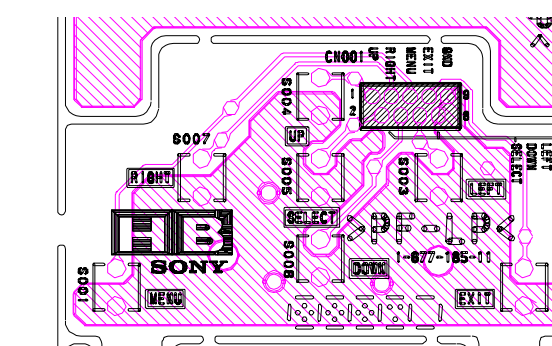
SC [SMART CARD]



HB BOARD SCHEMATIC DIAGRAM

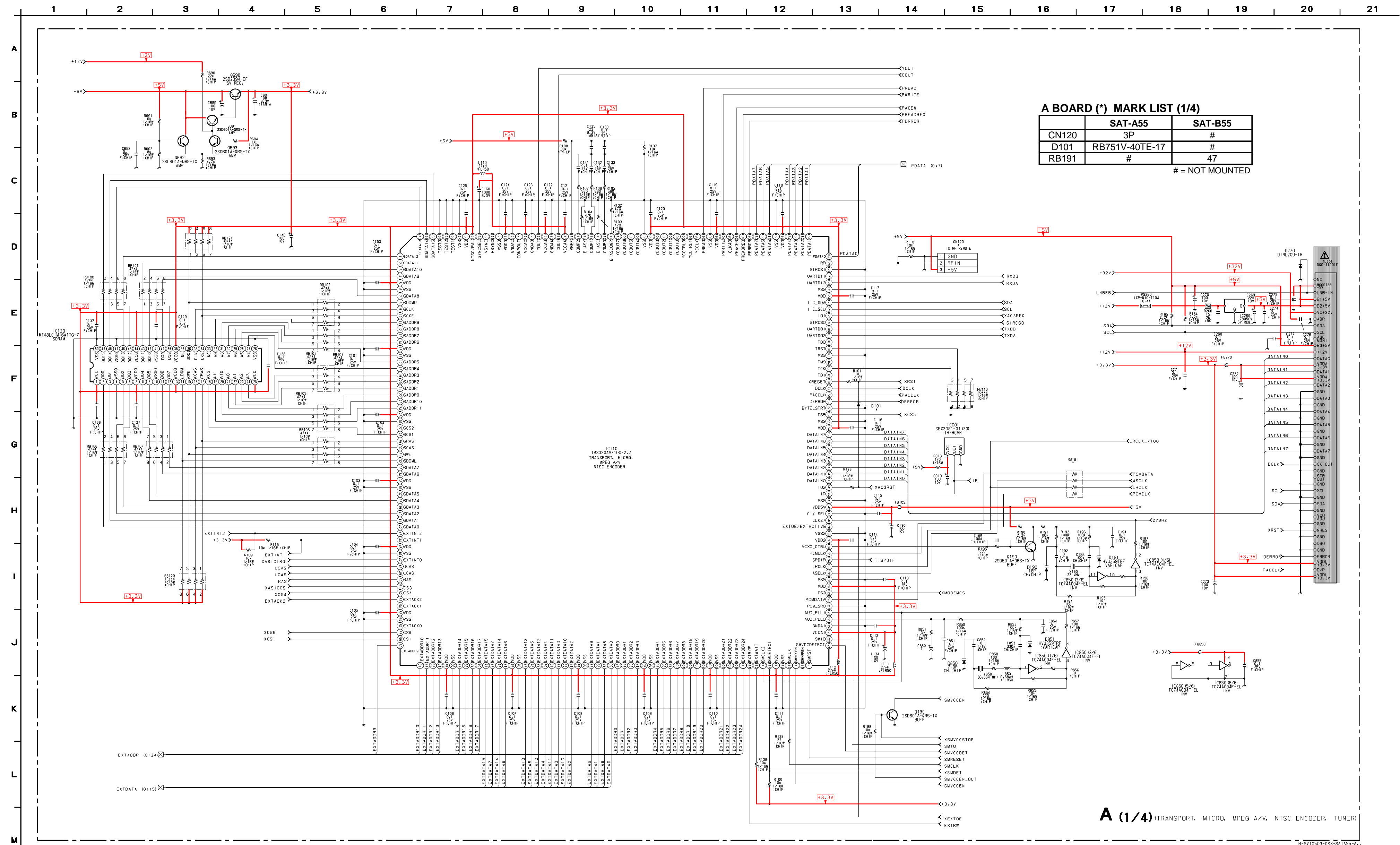


HB [FRONT PANEL]



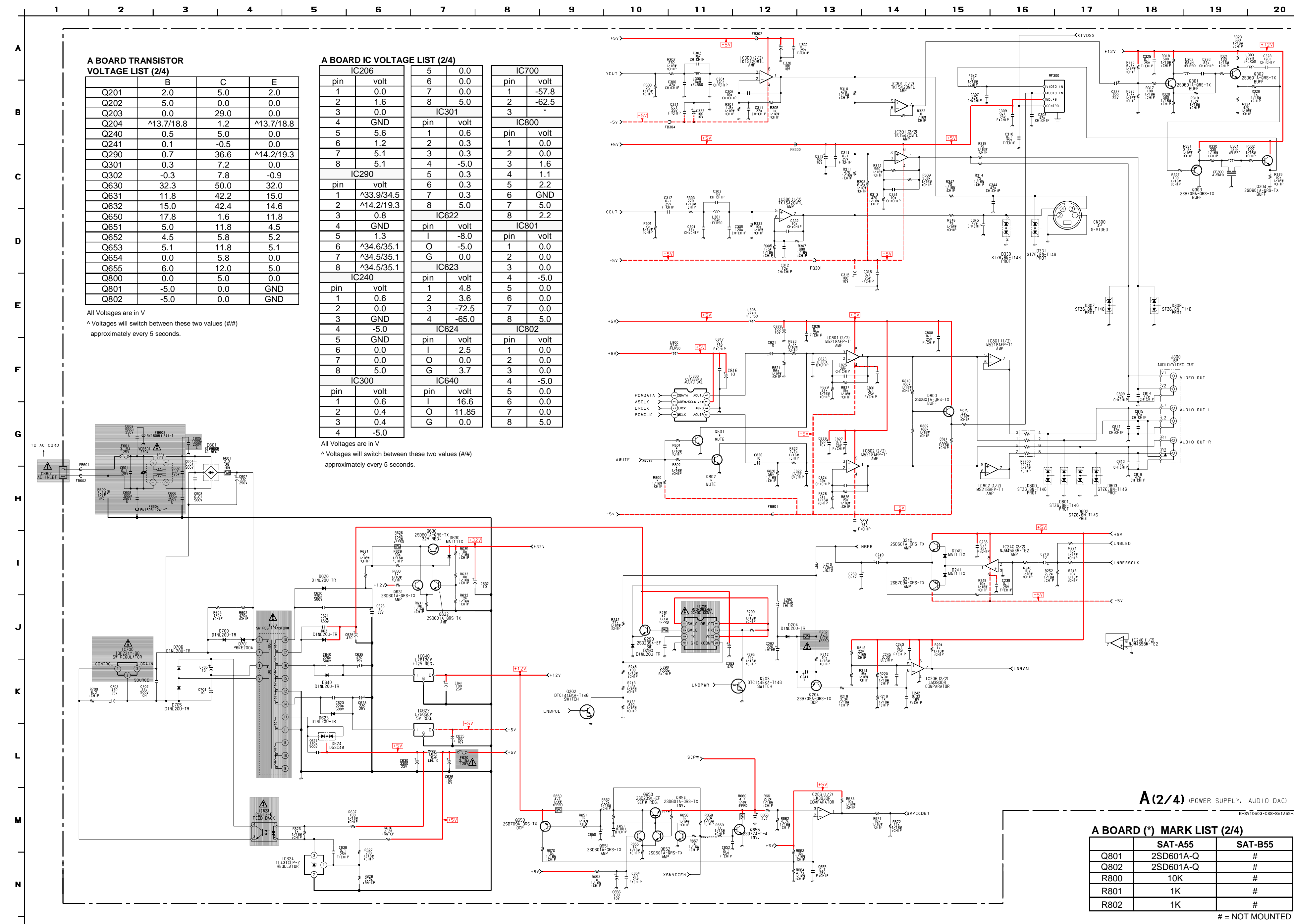


Schematic Diagram of A Board (1/4)

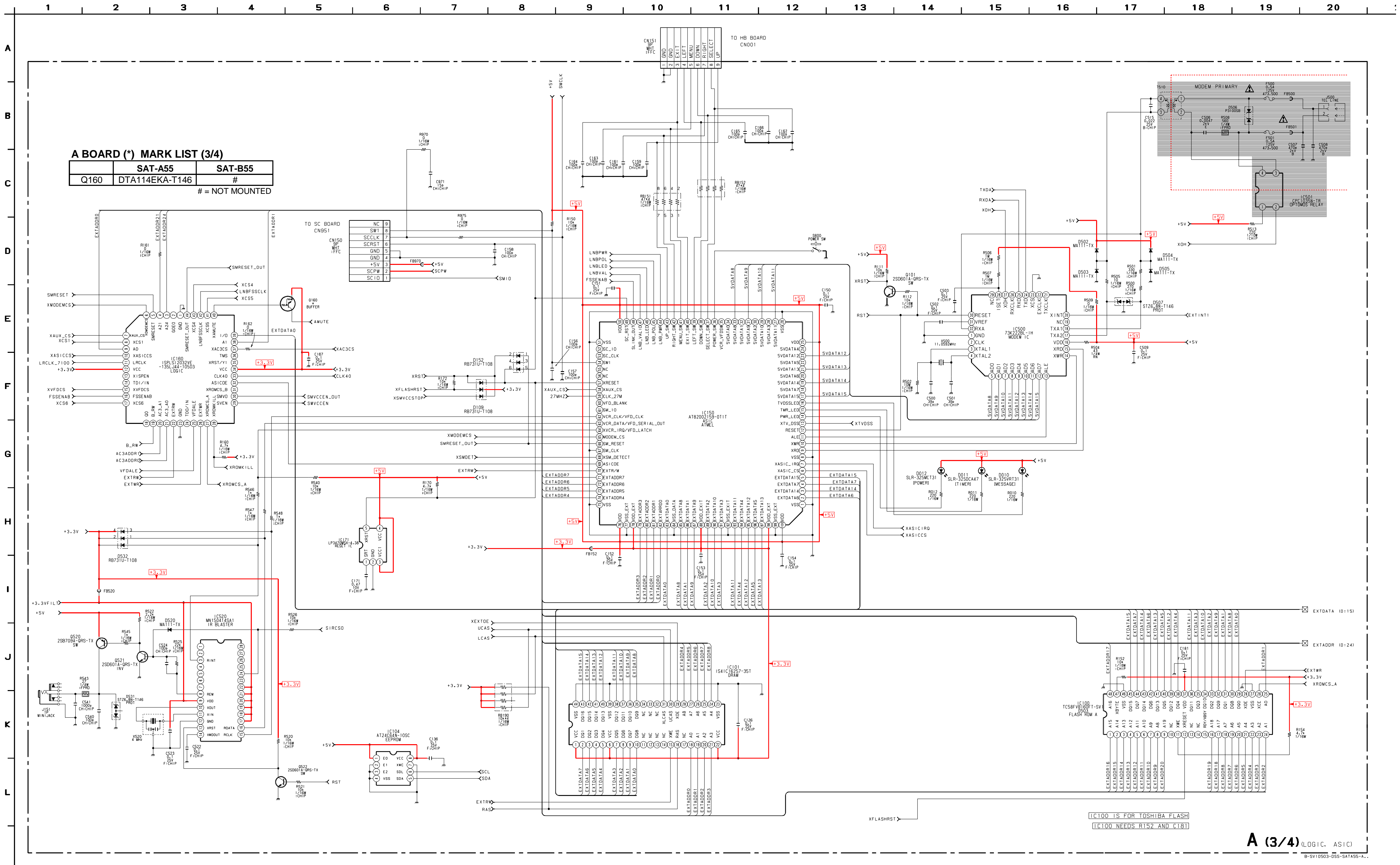


A (1/4) (TRANSPORT, MICRO, MPEG A/V, NTSC ENCODER, TUNER)

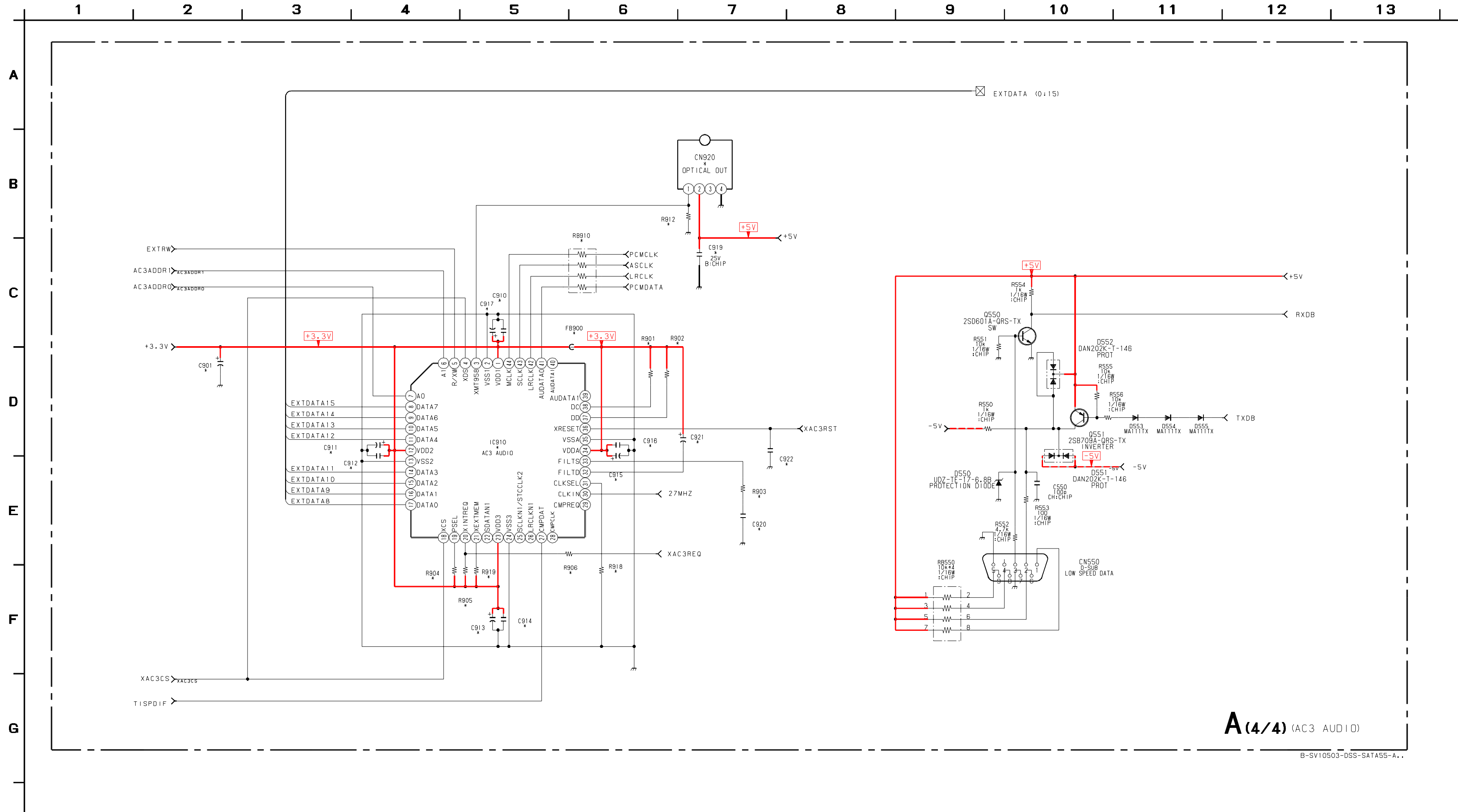
Schematic Diagram of A Board (2/4)



Schematic Diagram of A Board (3/4)



Schematic Diagram of A Board (4/4)



A (4/4) (AC3 AUDIO)

B-SV10S03-DSS-SATA55-A..

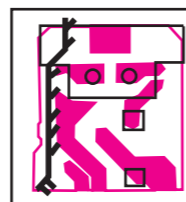
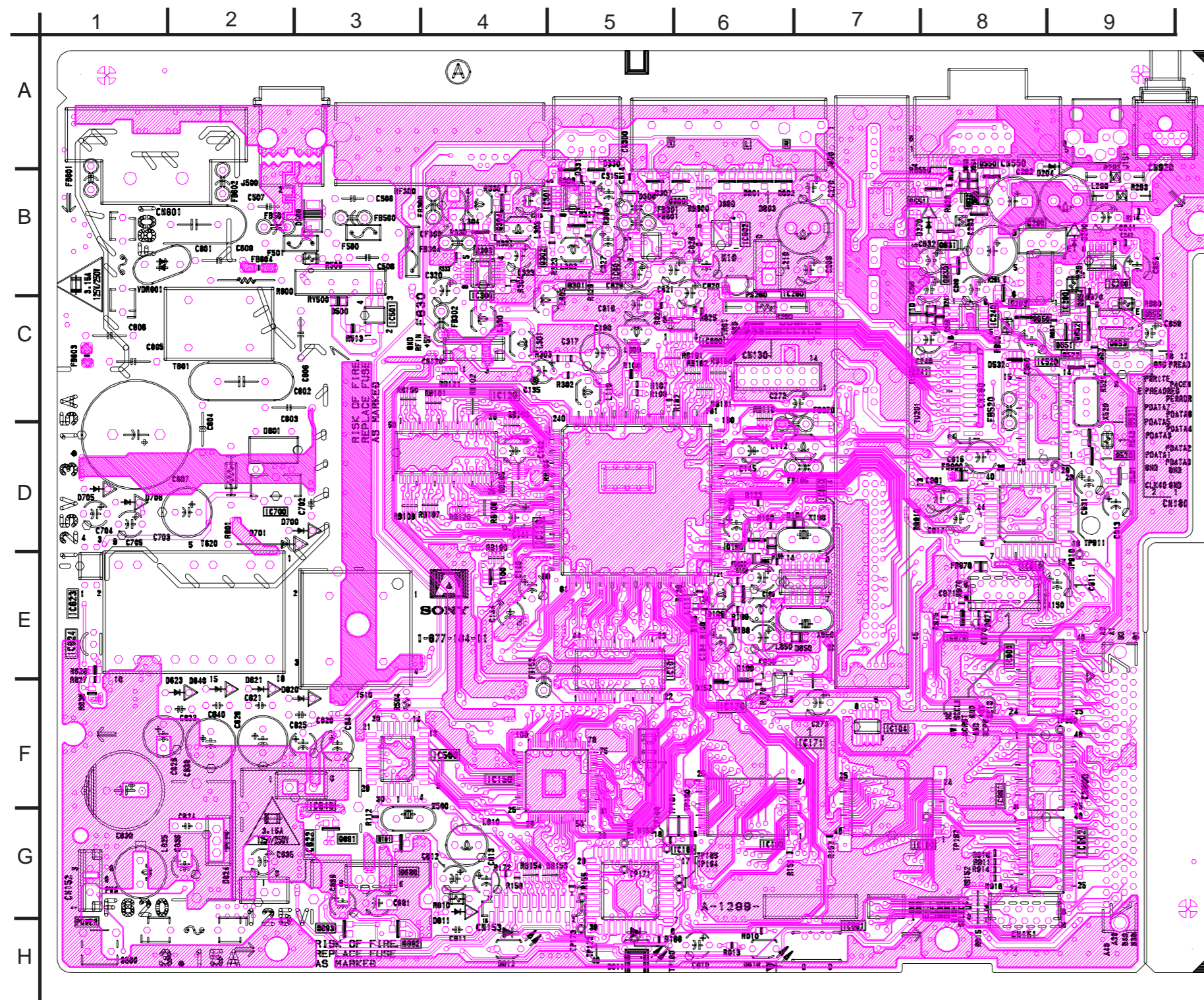
A BOARD (\*) MARK LIST (4/4)

	SAT-A55	SAT-B55	SAT-A55	SAT-B55
C901	100µF	#	FB900	0 µH
C910	0.1µF	#	IC910	IC CS492CL
C911	1µF	#	R901	10K
C912	0.1µF	#	R902	10K
C913	1µF	#	R903	0
C914	0.1µF	#	R904	10K
C915	47µF	#	R905	4.7K
C916	0.1µF	#	R906	0
C917	1µF	#	R912	10K
C919	0.1µF	#	R918	10K
C920	0.22µF	#	R919	4.7K
C921	2.2µF	#	RB910	47
C922	0.01µF	#		
CN920	IC GP1F32T	#		

# = NOT MOUNTED

**A** [POWER SUPPLY, TUNER TRANSPORT, MODEM, MICROCONTROLLER/ASIC, MPEG AV/NTSC]

Component Side



**NOTE:**  
Portions of the circuit marked as shown are live voltage areas. Use care to prevent electric shocks during inspection or repair.

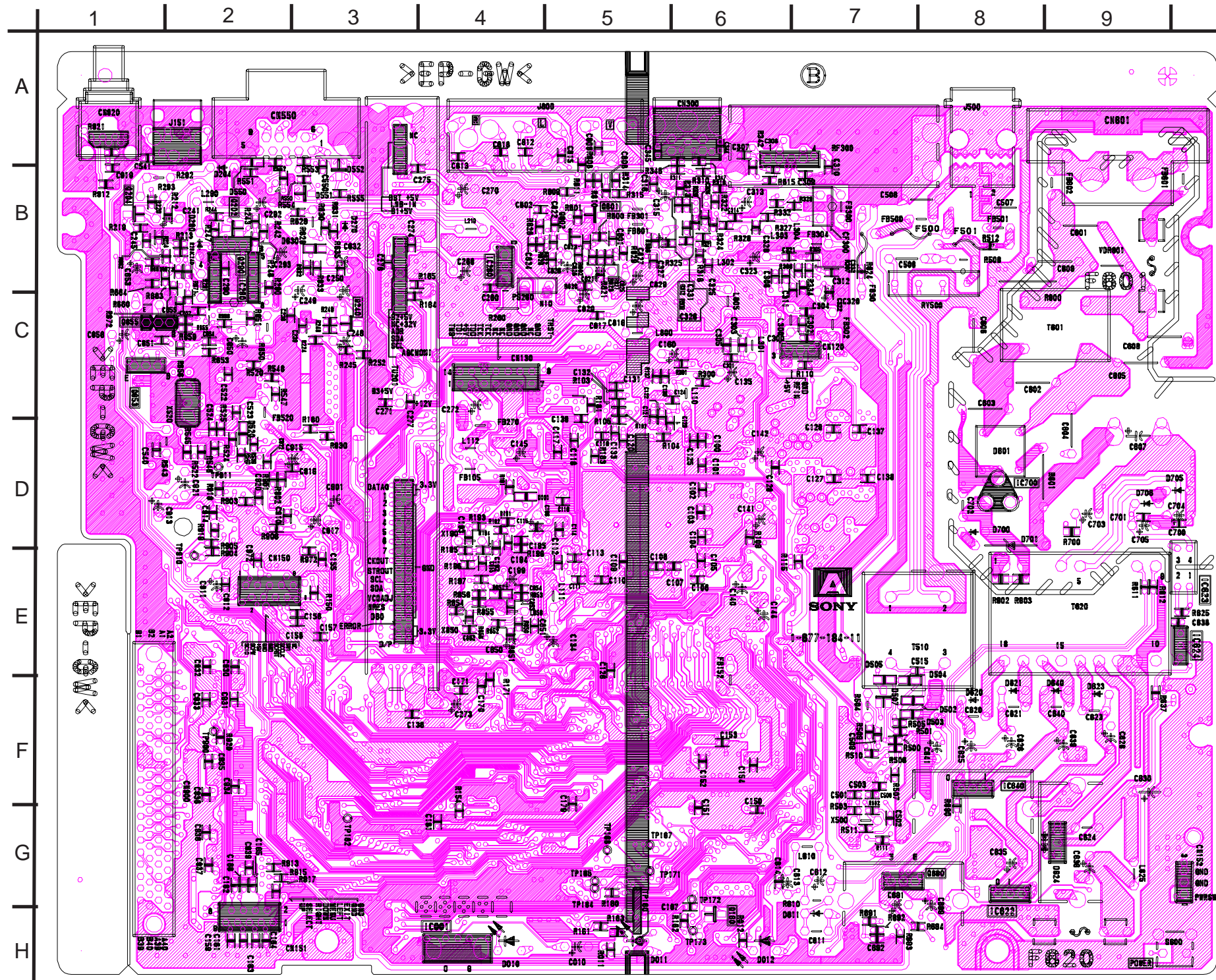
**A BOARD Component Location**

DIODE	IC	TRANSISTOR			
D010	H-6	IC001	G-7	Q101	G-3
D011	H-5	IC100	G-7	Q160	D-6
D012	H-4	IC101	E-5	Q190	E-6
D109	E-6	IC104	F-7	Q199	C-7
D190		IC110	D-4	Q201	B-8
D191	D-6	IC120	C-4	Q202	B-8
D204	B-8	IC150	F-4	Q203	B-8
D210		IC160	G-5	Q204	
D270		IC170	E-6	Q241	C-8
D290		IC206	B-9	Q290	B-9
D307	B-3	IC240	C-8	Q301	B-5
D308	B-5	IC260	B-6	Q302	B-4
D330	B-5	IC290	B-8	Q303	B-4
D331	B-5	IC300	B-4	Q304	B-4
D500	C-3	IC301	B-4	Q520	D-9
D501		IC500	F-4	Q521	C-9
D502		IC501	C-3	Q522	C-8
D503		IC520	C-8	Q550	A-8
D504		IC622	F-2	Q551	B-8
D505		IC623	E-1	Q630	B-8
D506	B-2	IC624	E-1	Q631	B-8
D520	C-8	IC640	G-3	Q632	B-8
D531	D-9	IC700	D-2	Q650	C-8
D532	C-8	IC800	E-8	Q651	C-8
D550		IC801	B-5	Q652	C-8
D551	B-5	IC802	G-9	Q653	D-9
D552		IC850	D-6	Q654	B-8
D553	B-7	IC910	D-8	Q655	B-9
D554	B-7			Q690	G-3
D555	B-8			Q691	G-3
D601	C-2			Q692	G-3
D620	E-3			Q693	G-3
D621	E-2			Q800	B-5
D623	E-1			Q801	
D624	G-2			Q802	
D630	B-7			<b>CRYSTAL</b>	
D640	E-1			X190	D-7
D700	D-2			X500	D-7
D701	D-3			X520	C-8
D705	D-1			X850	E-6
D706	D-2				
D800	B-6				
D801	B-6				
D802	B-6				
D803	B-6				
D850	E-6				
D851	E-6				

**A**

[POWER SUPPLY, TUNER TRANSPORT, MODEM, MICROCONTROLLER/ASIC, MPEG AV/NTSC]

Conductor Side

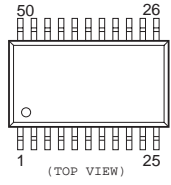


A BOARD Conductor Location

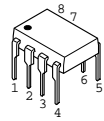
DIODE	IC	TRANSISTOR
D010	H-4	IC001 G-4
D011	G-5	IC100
D012	G-6	IC101
D109		IC104
D190		IC110
D191		IC120
D204		IC150
D210	B-2	IC160
D270	B-2	IC170
D290	B-2	IC206
D307		IC240
D308		IC260 B-5
D330		IC290 B-2
D331		IC300
D500		IC301
D501	F-8	IC500
D502	F-7	IC501
D503	F-8	IC520
D504	F-7	IC622 G-8
D505	F-7	IC623 E-10
D506		IC624 E-10
D520	C-2	IC640 F-8
D531		IC700 F-8
D532		IC800
D550	F-7	IC801
D551	B-3	IC802
D552	B-3	IC850
D553		IC910
D554		
D555		
D601	D-8	
D620	F-8	
D621	F-8	
D623	F-9	
D624	G-9	
D630		
D640	F-9	
D700	E-8	
D701	D-8	
D705	D-9	
D706	D-9	
D800		
D801		
D802		
D803		
D850		
D851		

4-4. SEMICONDUCTORS

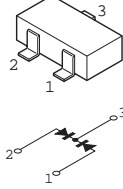
MN4SV17165BT-12



MC34063ABN



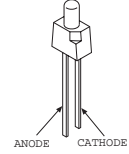
DAN202K



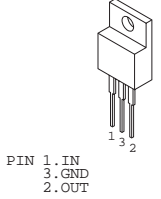
2SD774-34



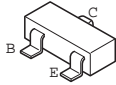
SLR-325MCT31  
SLR-325DCA47  
SLR-325VRT31



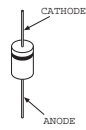
TA7805S



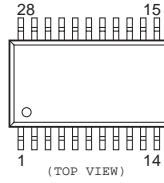
2SA1162-G0  
2SD601A-Q  
DTC144EK-T164



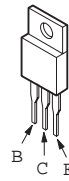
S2LA20F



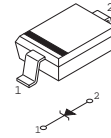
MN150414SA1



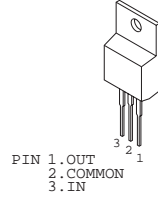
2SD2394-EF



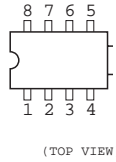
UDZ-TE-17-6.8B



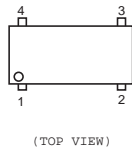
NJM78M05FA



AT24C64N-10SC  
BA10393F-E1  
MC14577CF



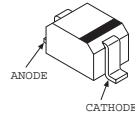
PST575DMT-T1



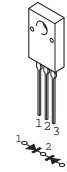
TL431CLP-Z



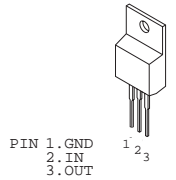
HVU359TRF  
MA111



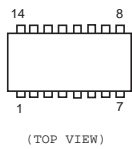
D5SC4M



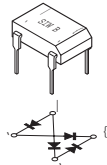
MC7905CT  
TOP224Y-B



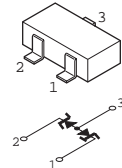
NJM2129M-TE2  
SN74HCU04ANS-E20  
TC74AC04F-EL



S1WB60B



RD6.2MW-T1B



DTA114WSA-TP



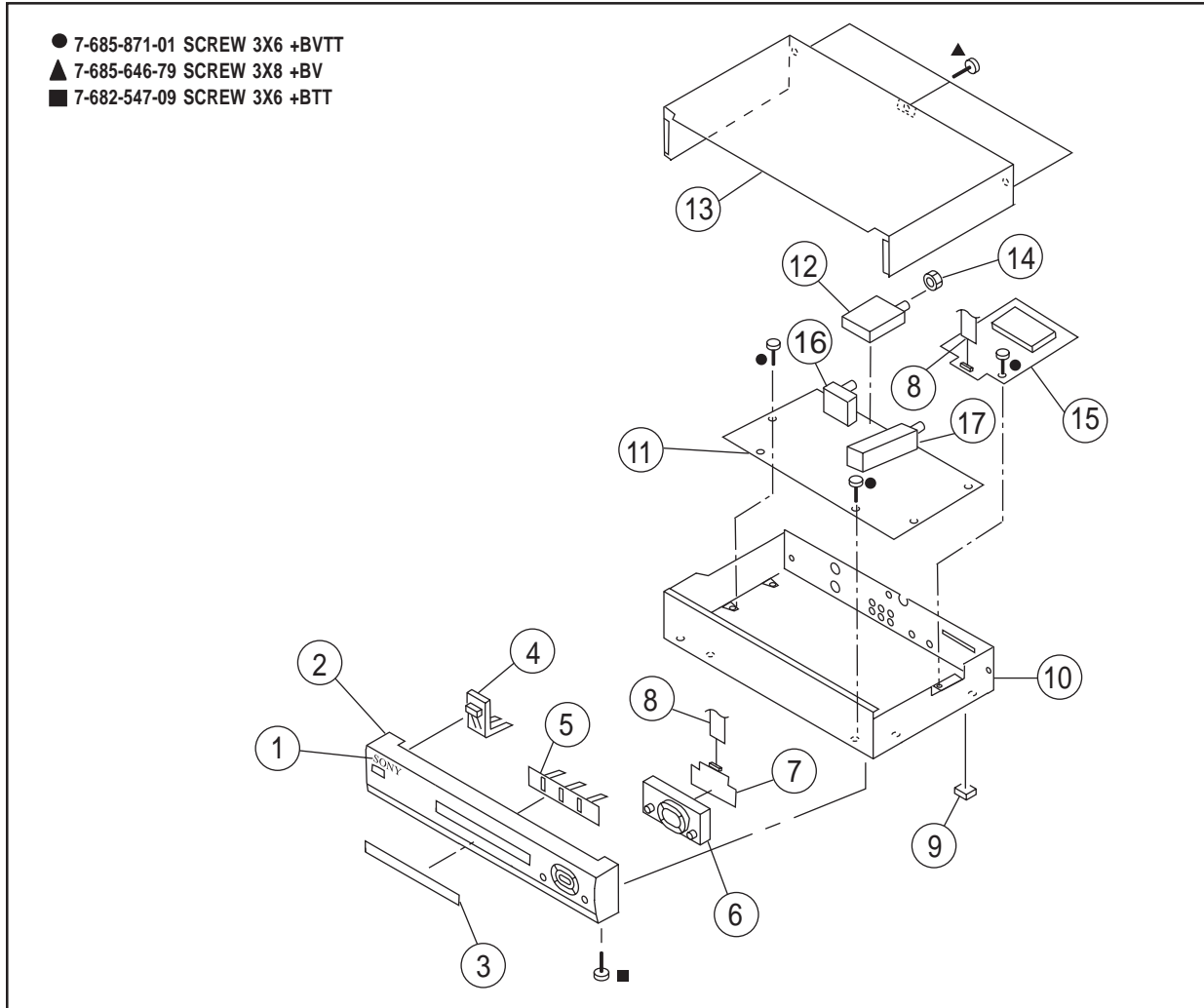
## SECTION 5 EXPLODED VIEWS

**NOTE:**

The components identified by shading and  $\blacktriangle$  mark are critical for safety. Replace only with part number specified.

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The component parts of an assembly are indicated by the reference numbers in the remarks column.
- Items marked \* are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

### 5-1. SAT-A55/B55 CHASSIS

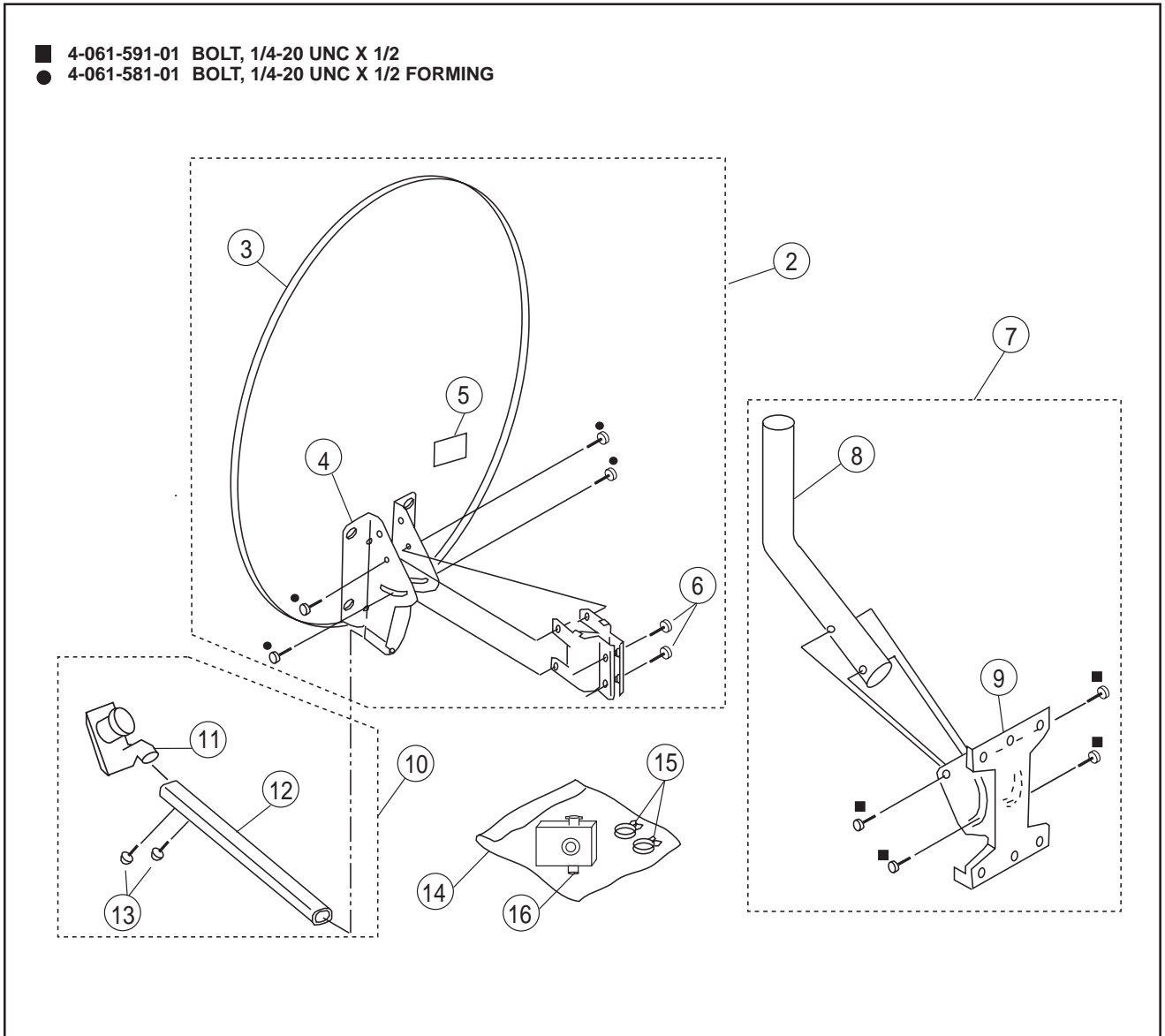


REF. NO	PART NO.	DESCRIPTION	REMARK
1	4-062-173-01	EMBLEM, SONY (4-A)	
2	X-4036-848-3	PANEL ASSY, FRONT (SAT-B55)	
2	X-4036-848-4	PANEL ASSY, FRONT (SAT-A55)	
3	4-071-127-11	PANEL, INDICATOR	
4	4-060-001-02	BUTTON, POWER	
5	4-060-004-01	GUIDE, LED	
6	4-060-002-01	BUTTON, MULTI	
7	* A-1372-783-A	HB MOUNTED PC BOARD	
8	* 1-900-801-89	CONNECTOR, FFC 9P	

REF. NO	PART NO.	DESCRIPTION	REMARK
9	4-048-281-01	FOOT	
10	* 4-074-791-01	CASE, LOWER	
11	* A-1299-170-A	A COMPLETE PC BOARD (SAT-B55)	
11	* A-1299-166-A	A COMPLETE PC BOARD (SAT-A55)	
12	8-598-363-00	RF REMOCRON RECEIVER RFR-RA101 (SAT-A55)	
13	* 4-060-760-11	CASE, UPPER	
14	3-682-691-00	NUT, WASHER HEXAGON	
15	* A-1391-023-A	SC MOUNTED PC BOARD	
16	1-473-156-11	MODULATOR, RF	
17	$\blacktriangle$ 8-598-524-00	INTERFACE MODULE DQS-DA101F	



5-2. SAN-18D3



REF. NO	PART NO.	DESCRIPTION	REMARK
2	X-4035-039-2	MOUNT ASSY, REFLECTOR	3-6
3	4-061-583-01	REFLECTOR	
4	4-061-584-01	REFLECTOR, MOUNTING BASE	
5 *	4-061-576-11	LABEL, MODEL NUMBER	
6	4-061-587-01	BOLT, 1/4-20 UNC X 7/8	
7	X-4035-030-1	MOUNT ASSY, UNIVERSAL	8-9
8 *	4-061-588-01	MAST, UNIVERSAL MOUNT	
9 *	4-061-589-01	FOOT, UNIVERSAL MOUNT	
10*	X-4035-040-1	ARM ASSY, LNB	11-13

REF. NO	PART NO.	DESCRIPTION	REMARK
11	8-598-326-02	CONVERTER, BS SAC-DA201	
12 *	4-061-590-01	ARM, LNB SUPPORT	
13	4-061-592-01	SCREW, ROUND SEMS (2)	
14	4-049-203-01	COVER, WATERPROOF	
15	4-049-478-01	CLIP (L)	
16	1-251-841-11	SIGNAL SEEKER	



The components identified by shading and  $\triangle$  mark are critical for safety. Replace only with part no. specified.

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
C274	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C541	1-162-964-11	CERAMIC CHIP	0.001 $\mu$ F	10%	50V	
C275	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C550	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C276	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C601 $\triangle$	1-136-345-21	MYLAR	0.1 $\mu$ F	20%	125V	
C277	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C602 $\triangle$	1-136-345-21	MYLAR	0.1 $\mu$ F	20%	125V	
C290	1-162-964-11	CERAMIC CHIP	0.001 $\mu$ F	10%	50V	C603	1-102-050-00	CERAMIC CHIP	0.01 $\mu$ F	20%	500V
C292	1-135-909-71	CAP,ELECT	220 $\mu$ F		C604	1-102-050-00	CERAMIC CHIP	0.01 $\mu$ F	20%	500V	
C293	1-126-971-11	ELECT	470 $\mu$ F	20%	50V	C605 $\triangle$	1-113-903-11	CERAMIC CHIP	0.001 $\mu$ F	20%	250V
C300	1-162-923-11	CERAMIC CHIP	47pF	5%	50V	C606 $\triangle$	1-113-903-11	CERAMIC CHIP	0.001 $\mu$ F	20%	250V
C301	1-162-923-11	CERAMIC CHIP	47pF	5%	50V	C607	1-113-610-11	ELECT(BLOCK)	220 $\mu$ F	20%	250V
C302	1-162-915-11	CERAMIC CHIP	10pF	0.50pF	50V	C608 $\triangle$	1-113-903-11	CERAMIC CHIP	0.001 $\mu$ F	20%	250V
C303	1-162-915-11	CERAMIC CHIP	10pF	0.50pF	50V	C609 $\triangle$	1-113-903-11	CERAMIC CHIP	0.001 $\mu$ F	20%	250V
C304	1-162-928-11	CERAMIC CHIP	120pF	5%	50V	C620	1-102-244-00	CERAMIC CHIP	220pF	10%	500V
C305	1-162-928-11	CERAMIC CHIP	120pF	5%	50V	C621	1-102-244-00	CERAMIC CHIP	220pF	10%	500V
C306	1-162-915-11	CERAMIC CHIP	10pF	0.50pF	50V	C623	1-102-244-00	CERAMIC CHIP	220pF	10%	500V
C307	1-162-923-11	CERAMIC CHIP	47pF	5%	50V	C624	1-102-244-00	CERAMIC CHIP	220pF	10%	500V
C308	1-162-923-11	CERAMIC CHIP	47pF	5%	50V	C625	1-128-582-11	ELECT	10 $\mu$ F	20%	63V
C309	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C626	1-126-971-11	ELECT	470 $\mu$ F	20%	50V	
C310	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C628	1-104-666-11	ELECT	220 $\mu$ F	20%	25V	
C311	1-162-920-11	CERAMIC CHIP	27pF	5%	50V	C630	1-126-944-11	ELECT	3300 $\mu$ F	20%	25V
C312	1-162-916-11	CERAMIC CHIP	12pF	5%	50V	C632	1-126-964-11	ELECT	10 $\mu$ F	20%	50V
C313	1-104-665-11	ELECT	100 $\mu$ F	20%	10V	C635	1-104-665-11	ELECT	100 $\mu$ F	20%	10V
C314	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C636	1-104-665-11	ELECT	100 $\mu$ F	20%	10V	
C315	1-104-665-11	ELECT	100 $\mu$ F	20%	10V	C638	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	
C316	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C639	1-126-951-11	ELECT	470 $\mu$ F	20%	35V	
C317	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C640	1-102-244-00	CERAMIC CHIP	220pF	10%	500V	
C320	1-104-665-11	ELECT	100 $\mu$ F	20%	10V	C641	1-104-665-11	ELECT	100 $\mu$ F	20%	25V
C321	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C650	1-126-960-11	ELECT	1 $\mu$ F	20%	50V	
C322	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C651	1-162-964-11	CERAMIC CHIP	0.001 $\mu$ F	10%	50V	
C323	1-104-665-11	ELECT	100 $\mu$ F	20%	10V	C652	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	
C325	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C653	1-126-961-11	ELECT	2.2 $\mu$ F	20%	50V	
C326	1-162-926-11	CERAMIC CHIP	82pF	5%	50V	C654	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	
C327	1-104-665-11	ELECT	100 $\mu$ F	20%	25V	C655	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	
C328	1-162-928-11	CERAMIC CHIP	120pF	5%	50V	C656	1-104-665-11	ELECT	100 $\mu$ F	20%	10V
C331	1-162-915-11	CERAMIC CHIP	10pF	0.50pF	50V	C691	1-131-388-00	TANTALUM	68 $\mu$ F	10%	6.3V
C332	1-162-915-11	CERAMIC CHIP	10pF	0.50pF	50V	C692	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	
C344	1-162-923-11	CERAMIC CHIP	47pF	5%	50V	C699	1-104-665-11	ELECT	100 $\mu$ F	20%	10V
C345	1-162-923-11	CERAMIC CHIP	47pF	5%	50V	C702	1-107-601-11	CERAMIC CHIP	33pF	5%	500V
C500	1-162-922-11	CERAMIC CHIP	39pF	5%	50V	C703	1-126-951-11	ELECT	470 $\mu$ F	20%	35V
C501	1-162-922-11	CERAMIC CHIP	39pF	5%	50V	C704	1-126-964-11	ELECT	10 $\mu$ F	20%	50V
C502	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C705	1-126-964-11	ELECT	10 $\mu$ F	20%	50V	
C503	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C801	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V		
C506 $\triangle$	1-162-114-00	CERAMIC CHIP	0.0047 $\mu$ F	2KV	C802	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V		
C507 $\triangle$	1-162-134-11	CERAMIC CHIP	470pF	10%	2KV	C808	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	
C508 $\triangle$	1-162-134-11	CERAMIC CHIP	470pF	10%	2KV	C809	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C509	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C812	1-162-923-11	CERAMIC CHIP	47pF	5%	50V	
C515	1-164-227-11	CERAMIC CHIP	0.022 $\mu$ F	10%	25V	C813	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C522	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C814	1-162-923-11	CERAMIC CHIP	47pF	5%	50V	
C523	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	C815	1-162-923-11	CERAMIC CHIP	47pF	5%	50V	
C524	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	C816	1-126-964-11	ELECT	10 $\mu$ F	20%	50V
C540	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	C817	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F	25V	

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK								
C818	1-162-923-11	CERAMIC CHIP	47pF 5% 50V	<u>CONNECTOR</u>											
C820	1-126-964-11	ELECT	10 $\mu$ F 20% 50V												
C821	1-126-964-11	ELECT	10 $\mu$ F 20% 50V												
C822	1-162-964-11	CERAMIC CHIP	0.001 $\mu$ F 10% 50V												
C823	1-162-964-11	CERAMIC CHIP	0.001 $\mu$ F 10% 50V												
C824	1-162-922-11	CERAMIC CHIP	39pF 5% 50V												
C825	1-162-922-11	CERAMIC CHIP	39pF 5% 50V												
C826	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F 25V												
C827	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F 25V												
C828	1-104-665-11	ELECT	100 $\mu$ F 20% 10V					CN120	*1-564-506-11	PLUG, CONNECTOR	3P				
C829	1-104-665-11	ELECT	100 $\mu$ F 20% 10V			(SAT-A55 ONLY)									
C850	1-126-960-11	ELECT	1 $\mu$ F 20% 50V	CN150	*1-568-828-11	PIN, CONNECTOR (PC BOARD)	9P								
C851	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F 25V	CN151	*1-568-828-11	PIN, CONNECTOR (PC BOARD)	9P								
C852	1-216-864-11	SHORT	0	CN300	1-694-135-11	TERMINAL, S VIDEO									
C853	1-162-959-11	CERAMIC CHIP	330pF 5% 50V	CN550	1-774-279-11	CONNECTOR, D-SUB (FEMALE)									
C854	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F 25V	<u>DIODE</u>											
C855	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F 25V												
C901	1-104-665-11	ELECT	100 $\mu$ F 20% 10V												
		(SAT-A55 ONLY)						CN601	$\Delta$ 1-251-135-11	INLET, AC					
C910	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F 25V					CN920	8-749-921-12	IC GP1F32T (SAT-A55 ONLY)					
		(SAT-A55 ONLY)						<u>DIODE</u>							
C911	1-126-960-11	ELECT	1 $\mu$ F 20% 50V												
		(SAT-A55 ONLY)										D010	8-719-050-05	DIODE SLR-325VRT31	
C912	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F 25V									D011	8-719-048-77	DIODE SLR-325DCA47	
		(SAT-A55 ONLY)										D012	8-719-060-27	DIODE SLR-325MCT31	
C913	1-126-960-11	ELECT	1 $\mu$ F 20% 50V	D101	8-719-060-48	DIODE RB751V-40TE-17									
		(SAT-A55 ONLY)				(SAT-A55 ONLY)									
C914	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F 25V	D109	8-719-045-67	DIODE RB731U-T108									
C915	1-126-967-11	ELECT	47 $\mu$ F 20% 50V	D152	8-719-045-67	DIODE RB731U-T108									
		(SAT-A55 ONLY)		D190	1-163-233-11	CERAMIC CHIP	18pF 5% 50V								
C916	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F 25V	D191	8-719-031-68	DIODE HVU359TRF									
		(SAT-A55 ONLY)		D204	8-719-063-73	DIODE D1NL20U-TR									
C917	1-126-960-11	ELECT	1 $\mu$ F 20% 50V	D240	8-719-073-01	DIODE MA111-TX									
		(SAT-A55 ONLY)		D241	8-719-073-01	DIODE MA111-TX									
C919	1-164-156-11	CERAMIC CHIP	0.1 $\mu$ F 25V	D270	8-719-063-73	DIODE D1NL20U-TR									
		(SAT-A55 ONLY)		D290	8-719-063-73	DIODE D1NL20U-TR									
C920	1-115-467-11	CERAMIC CHIP	0.22 $\mu$ F 10% 10V	D307	8-719-067-40	DIODE STZ6.8N-T146									
		(SAT-A55 ONLY)		D308	8-719-067-40	DIODE STZ6.8N-T146									
C921	1-126-961-11	ELECT	2.2 $\mu$ F 20% 50V	D330	8-719-067-40	DIODE STZ6.8N-T146									
		(SAT-A55 ONLY)		D331	8-719-067-40	DIODE STZ6.8N-T146									
C922	1-162-974-11	CERAMIC CHIP	0.01 $\mu$ F 50V	D502	8-719-073-01	DIODE MA111-TX									
		(SAT-A55 ONLY)		D503	8-719-073-01	DIODE MA111-TX									
C971	1-162-917-11	CERAMIC CHIP	15pF 5% 50V	D504	8-719-073-01	DIODE MA111-TX									
<u>FILTER</u>				D505	8-719-073-01	DIODE MA111-TX									
CF300	1-409-332-00	CERAMIC TRAP		D506	$\Delta$ 8-719-064-74	DIODE P3100SB									
				D507	8-719-067-40	DIODE STZ6.8N-T146									
				D520	8-719-073-01	DIODE MA111-TX									
				D531	8-719-067-40	DIODE STZ6.8N-T146									
				D532	8-719-045-67	DIODE RB731U-T108									
				D550	8-719-069-57	DIODE UDZS-TE17-6.8B									
				D551	8-719-914-43	DIODE DAN202K-T-146									
				D552	8-719-914-43	DIODE DAN202K-T-146									
				D553	8-719-073-01	DIODE MA111-TX									
				D554	8-719-073-01	DIODE MA111-TX									
				D555	8-719-073-01	DIODE MA111-TX									
				D601	8-719-510-43	DIODE S1WB60B									
				D620	8-719-063-73	DIODE D1NL20U-TR									
				D621	8-719-063-73	DIODE D1NL20U-TR									
				D623	8-719-063-73	DIODE D1NL20U-TR									

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D624	8-719-031-79	DIODE D5SC4M		IC150	8-759-471-57	IC AT82002159-0T1T	
D630	8-719-073-01	DIODE MA111-TX		IC160	8-759-675-91	IC ISPLSI2032VE-135LJ44-10503	
D640	8-719-063-73	DIODE D1NL20U-TR		IC171	8-759-663-27	IC LP3470M5X-4.38	
D700	8-719-063-73	DIODE D1NL20U-TR		IC206	8-759-510-72	IC LM393DR	
D701	8-719-059-24	DIODE P6KE200A		IC240	8-759-100-96	IC NJM4558M-TE2	
D705	8-719-063-73	DIODE D1NL20U-TR		IC260	8-759-231-53	IC L7805CV	
D706	8-719-063-73	DIODE D1NL20U-TR		IC290 $\Delta$	8-759-641-88	IC MC34063ABN	
D800	8-719-067-40	DIODE STZ6.8N-T146		IC300	8-759-640-14	IC TK15420MTL	
D801	8-719-067-40	DIODE STZ6.8N-T146		IC301	8-759-640-14	IC TK15420MTL	
D802	8-719-067-40	DIODE STZ6.8N-T146		IC500	8-759-469-41	IC 73K222BL-IH	
D803	8-719-067-40	DIODE STZ6.8N-T146		IC501 $\Delta$	8-749-017-37	IC CPC1035NTR	
D850	1-163-224-11	CERAMIC CHIP 7pF	0.25pF 50V	IC520	8-759-553-77	IC MN150414SA1	
D851	8-719-031-68	DIODE HVU359TRF		IC622	8-759-663-02	IC L7905CV	
<b>FUSE</b>				IC623 $\Delta$	8-719-936-96	PHOTO COUPLER PC817-B	
F500 $\Delta$	1-576-393-11	FUSE		IC624	8-759-198-31	IC TL431CLP-Z	
F501 $\Delta$	1-576-393-11	FUSE		IC640	8-759-231-58	IC L7812CV	
F601 $\Delta$	1-532-745-11	FUSE, GLASS TUBE	3.15A/125V	IC700 $\Delta$	8-759-490-02	IC TOP224Y-BB	
F620 $\Delta$	1-532-745-11	FUSE, GLASS TUBE	3.15A/125V	IC800	8-759-594-77	IC CS4388KS	
<b>FERRITE BEAD</b>				IC801	8-759-636-55	IC M5218AFP-T1	
FB105	1-412-911-11	FERRITE		IC802	8-759-636-55	IC M5218AFP-T1	
FB152	1-412-911-11	FERRITE		IC850	8-759-073-52	IC TC74AC04F-EL	
FB270	1-412-911-11	FERRITE		IC910	8-759-594-68	IC CS4924CL	(SAT-A55 ONLY)
FB300	1-412-911-11	FERRITE		<b>JACK</b>			
FB301	1-412-911-11	FERRITE		J151	1-568-267-21	JACK	
FB302	1-412-911-11	FERRITE		J500 $\Delta$	1-770-671-11	JACK, MODULAR	
FB304	1-412-911-11	FERRITE		J800	1-770-546-21	JACK, PIN	6P
FB500 $\Delta$	1-412-911-11	FERRITE		<b>COIL</b>			
FB501 $\Delta$	1-412-911-11	FERRITE		L110	1-408-608-31	INDUCTOR	27 $\mu$ H
FB520	1-412-911-11	FERRITE		L111	1-408-608-31	INDUCTOR	27 $\mu$ H
FB601	1-412-911-11	FERRITE		L112	1-408-608-31	INDUCTOR	27 $\mu$ H
FB602	1-412-911-11	FERRITE		L210	1-406-669-11	INDUCTOR	470 $\mu$ H
FB603 $\Delta$	1-500-284-21	INDUCTOR CHIP	0UH	L290	1-406-669-11	INDUCTOR	470 $\mu$ H
FB604 $\Delta$	1-500-284-21	INDUCTOR CHIP		L300	1-408-605-31	INDUCTOR	15 $\mu$ H
FB801	1-412-911-11	FERRITE		L301	1-408-605-31	INDUCTOR	15 $\mu$ H
FB850	1-414-231-22	INDUCTOR CHIP		L302	1-408-613-31	INDUCTOR	68 $\mu$ H
FB900	1-414-231-22	INDUCTOR CHIP		L303	1-408-608-31	INDUCTOR	27 $\mu$ H
FB970	1-414-231-22	INDUCTOR CHIP		L304	1-410-471-11	INDUCTOR	12 $\mu$ H
<b>IC</b>				L625	1-406-659-11	INDUCTOR	10 $\mu$ H
IC001	8-742-205-30	HYB IC SBX3081-01(30)		L800	1-408-608-31	INDUCTOR	27 $\mu$ H
IC100	8-759-667-22	IC TC58FVB160FT-SV10503		L805	1-408-608-31	INDUCTOR	27 $\mu$ H
IC101	8-759-669-19	IC IS41C16257-35T		L850	1-414-108-11	INDUCTOR	0.68 $\mu$ H
IC104	8-759-427-46	IC AT24C64N-10SC		<b>IC LINK</b>			
IC110	8-759-663-50	IC TMS320AV7100-2.7		PS260	1-532-605-00	LINK, IC	0.4A/150V
IC120	8-759-641-60	IC MT48LC1M16A1TG-7S					

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<b>TRANSISTOR</b>				R104	1-216-817-11	RES, CHIP	470 5% 1/16W
				R105	1-216-818-11	RES, CHIP	560 5% 1/16W
Q101	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R106	1-216-818-11	RES, CHIP	560 5% 1/16W
Q160	8-729-027-23	TRANSISTOR DTA114EKA-T146 (SAT-A55 ONLY)		R107	1-216-818-11	RES, CHIP	560 5% 1/16W
Q190	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R108	1-216-686-11	METALCHIP	30K 0.50% 1/10W
Q199	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R109	1-216-833-91	RES, CHIP	10K 5% 1/16W
Q202	1-801-806-11	TRANSISTOR DTC144EKA-T146		R110	1-216-833-91	RES, CHIP	10K 5% 1/16W
Q203	1-801-806-11	TRANSISTOR DTC144EKA-T146		R111	1-216-833-91	RES, CHIP	10K 5% 1/16W
Q204	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R112	1-216-833-91	RES, CHIP	10K 5% 1/16W
Q240	8-729-216-22	TRANSISTOR 2SD601A-QRS-TX		R115	1-216-833-91	RES, CHIP	10K 5% 1/16W
Q241	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R123	1-216-864-11	SHORT	0
Q290	8-729-019-01	TRANSISTOR 2SD2394-EF		R137	1-216-833-91	RES, CHIP	10K 5% 1/16W
Q301	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R138	1-216-833-91	RES, CHIP	10K 5% 1/16W
Q302	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R139	1-216-801-11	RES, CHIP	22 5% 1/16W
Q303	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R150	1-216-833-91	RES, CHIP	10K 5% 1/16W
Q304	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R152	1-216-833-91	RES, CHIP	10K 5% 1/16W
Q520	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R154	1-216-829-11	RES, CHIP	4.7K 5% 1/16W
Q521	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R160	1-216-829-11	RES, CHIP	4.7K 5% 1/16W
Q522	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R161	1-216-864-11	SHORT	0
Q550	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R162	1-216-864-11	SHORT	0
Q551	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R164	1-216-825-11	RES, CHIP	2.2K 5% 1/16W
Q630	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R165	1-216-825-11	RES, CHIP	2.2K 5% 1/16W
Q631	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R170	1-216-829-11	RES, CHIP	4.7K 5% 1/16W
Q632	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R172	1-216-833-91	RES, CHIP	10K 5% 1/16W
Q650	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R188	1-216-833-91	RES, CHIP	10K 5% 1/16W
Q651	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R190	1-216-825-11	RES, CHIP	2.2K 5% 1/16W
Q652	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R191	1-216-845-11	RES, CHIP	100K 5% 1/16W
Q653	8-729-019-01	TRANSISTOR 2SD2394-EF		R192	1-216-845-11	RES, CHIP	100K 5% 1/16W
Q654	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R193	1-216-845-11	RES, CHIP	100K 5% 1/16W
Q655	8-729-140-96	TRANSISTOR 2SD774-T-4		R194	1-216-809-11	RES, CHIP	100 5% 1/16W
Q690	8-729-019-01	TRANSISTOR 2SD2394-EF		R195	1-216-857-11	RES, CHIP	1M 5% 1/16W
Q691	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R196	1-216-809-11	RES, CHIP	100 5% 1/16W
Q692	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R197	1-216-809-11	RES, CHIP	100 5% 1/16W
Q693	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R198	1-216-837-11	RES, CHIP	22K 5% 1/16W
Q800	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R212	1-216-833-91	RES, CHIP	10K 5% 1/16W
Q801	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX (SAT-A55 ONLY)		R213	1-216-837-11	RES, CHIP	22K 5% 1/16W
Q802	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX (SAT-A55 ONLY)		R214	1-216-835-11	RES, CHIP	15K 5% 1/16W
				R218	1-216-061-00	RES, CHIP	3.3K 5% 1/10W
				R219	1-216-049-91	RES, CHIP	1K 5% 1/10W
				R220	1-216-827-11	RES, CHIP	3.3K 5% 1/16W
				R224	1-216-833-91	RES, CHIP	10K 5% 1/16W
				R242	1-216-838-11	RES, CHIP	27K 5% 1/16W
R010	1-216-813-11	RES, CHIP	220 5% 1/16W	R243	1-216-824-11	RES, CHIP	1.8K 5% 1/16W
R011	1-216-813-11	RES, CHIP	220 5% 1/16W	R244	1-216-820-11	RES, CHIP	820 5% 1/16W
R012	1-216-813-11	RES, CHIP	220 5% 1/16W	R245	1-216-833-91	RES, CHIP	10K 5% 1/16W
R013	1-216-817-11	RES, CHIP	470 5% 1/16W	R246	1-216-809-11	RES, CHIP	100 5% 1/16W
R100	1-216-833-91	RES, CHIP	10K 5% 1/16W	R248	1-216-833-91	RES, CHIP	10K 5% 1/16W
R101	1-216-821-11	RES, CHIP	1K 5% 1/16W	R249	1-216-833-91	RES, CHIP	10K 5% 1/16W
R102	1-216-817-11	RES, CHIP	470 5% 1/16W	R252	1-216-825-11	RES, CHIP	2.2K 5% 1/16W
R103	1-216-817-11	RES, CHIP	470 5% 1/16W	R260	1-215-881-11	METAL OXIDE	15 5% 2W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R290	1-216-821-11	RES, CHIP	1K 5% 1/16W	R513	1-216-033-00	RES, CHIP	220 5% 1/10W
R291	1-249-401-11	CARBON	47 5% 1/4W	R520	1-216-833-91	RES, CHIP	10K 5% 1/16W
R292 $\Delta$	1-260-292-11	CARBON	1 5% 1/2W	R521	1-216-833-91	RES, CHIP	10K 5% 1/16W
R294	1-216-821-11	RES, CHIP	1K 5% 1/16W	R522	1-216-825-11	RES, CHIP	2.2K 5% 1/16W
R295	1-216-837-11	RES, CHIP	22K 5% 1/16W	R525	1-216-837-11	RES, CHIP	22K 5% 1/16W
R300	1-218-285-11	RES, CHIP	75 5% 1/16W	R526	1-216-833-91	RES, CHIP	10K 5% 1/16W
R301	1-218-285-11	RES, CHIP	75 5% 1/16W	R540	1-216-833-91	RES, CHIP	10K 5% 1/16W
R302	1-216-814-11	RES, CHIP	270 5% 1/16W	R543	1-249-398-11	CARBON	27 5% 1/4W
R303	1-216-814-11	RES, CHIP	270 5% 1/16W	R545	1-216-821-11	RES, CHIP	1K 5% 1/16W
R304	1-216-823-11	RES, CHIP	1.5K 5% 1/16W	R546	1-216-821-11	RES, CHIP	1K 5% 1/16W
R305	1-216-823-11	RES, CHIP	1.5K 5% 1/16W	R547	1-216-821-11	RES, CHIP	1K 5% 1/16W
R306	1-216-821-11	RES, CHIP	1K 5% 1/16W	R548	1-216-821-11	RES, CHIP	1K 5% 1/16W
R307	1-216-819-11	RES, CHIP	680 5% 1/16W	R550	1-216-821-11	RES, CHIP	1K 5% 1/16W
R308	1-216-831-11	RES, CHIP	6.8K 5% 1/16W	R551	1-216-833-91	RES, CHIP	10K 5% 1/16W
R309	1-216-830-11	RES, CHIP	5.6K 5% 1/16W	R552	1-216-829-11	RES, CHIP	4.7K 5% 1/16W
R310	1-216-817-11	RES, CHIP	470 5% 1/16W	R553	1-216-809-11	RES, CHIP	100 5% 1/16W
R311	1-216-817-11	RES, CHIP	470 5% 1/16W	R554	1-216-821-11	RES, CHIP	1K 5% 1/16W
R312	1-216-818-11	RES, CHIP	560 5% 1/16W	R555	1-216-833-91	RES, CHIP	10K 5% 1/16W
R313	1-216-817-11	RES, CHIP	470 5% 1/16W	R556	1-216-833-91	RES, CHIP	10K 5% 1/16W
R314	1-218-285-11	RES, CHIP	75 5% 1/16W	R600 $\Delta$	1-202-723-00	SOLID	2.2M 20% 1/2W
R315	1-218-285-11	RES, CHIP	75 5% 1/16W	R601	1-217-253-11	WIREWOUND	2.2 10% 3W
R317	1-216-809-11	RES, CHIP	100 5% 1/16W	R602	1-216-113-00	RES, CHIP	470K 5% 1/10W
R318	1-216-818-11	RES, CHIP	560 5% 1/16W	R603	1-216-113-00	RES, CHIP	470K 5% 1/10W
R319	1-216-822-11	RES, CHIP	1.2K 5% 1/16W	R624	1-216-864-11	SHORT	0
R320	1-216-818-11	RES, CHIP	560 5% 1/16W	R625	1-216-821-11	RES, CHIP	1K 5% 1/16W
R321	1-216-809-11	RES, CHIP	100 5% 1/16W	R626	1-260-332-51	CARBON	2.2K 5% 1/2W
R322	1-216-864-11	SHORT	0	R627	1-218-287-11	RES, CHIP	200 5% 1/16W
R323	1-216-818-11	RES, CHIP	560 5% 1/16W	R628	1-208-790-11	METALCHIP	2.2K 0.50% 1/10W
R324	1-216-817-11	RES, CHIP	470 5% 1/16W	R629	1-216-839-11	RES, CHIP	33K 5% 1/16W
R325	1-216-831-11	RES, CHIP	6.8K 5% 1/16W	R630	1-216-821-11	RES, CHIP	1K 5% 1/16W
R326	1-216-829-11	RES, CHIP	4.7K 5% 1/16W	R631	1-216-833-91	RES, CHIP	10K 5% 1/16W
R327	1-216-809-11	RES, CHIP	100 5% 1/16W	R632	1-216-834-11	RES, CHIP	12K 5% 1/16W
R328	1-216-821-11	RES, CHIP	1K 5% 1/16W	R633	1-216-833-91	RES, CHIP	10K 5% 1/16W
R330	1-216-815-11	RES, CHIP	330 5% 1/16W	R635	1-216-833-91	RES, CHIP	10K 5% 1/16W
R331	1-216-825-11	RES, CHIP	2.2K 5% 1/16W	R636	1-208-790-11	METALCHIP	2.2K 0.50% 1/10W
R332	1-216-809-11	RES, CHIP	100 5% 1/16W	R637	1-216-809-11	RES, CHIP	100 5% 1/16W
R333	1-216-833-91	RES, CHIP	10K 5% 1/16W	R650	1-249-389-11	CARBON	4.7 5% 1/4W
R335	1-216-833-91	RES, CHIP	10K 5% 1/16W	R651	1-216-821-11	RES, CHIP	1K 5% 1/16W
R342	1-216-805-11	RES, CHIP	47 5% 1/16W	R652	1-216-825-11	RES, CHIP	2.2K 5% 1/16W
R347	1-218-285-11	RES, CHIP	75 5% 1/16W	R653	1-216-821-11	RES, CHIP	1K 5% 1/16W
R348	1-218-285-11	RES, CHIP	75 5% 1/16W	R655	1-216-821-11	RES, CHIP	1K 5% 1/16W
R500	1-216-814-11	RES, CHIP	270 5% 1/16W	R656	1-216-821-11	RES, CHIP	1K 5% 1/16W
R501	1-216-815-11	RES, CHIP	330 5% 1/16W	R657	1-216-821-11	RES, CHIP	1K 5% 1/16W
R502	1-219-570-11	RES, CHIP	10M 5% 1/16W	R658	1-216-827-11	RES, CHIP	3.3K 5% 1/16W
R504	1-215-388-00	METAL	43 1% 1/4W	R659	1-216-821-11	RES, CHIP	1K 5% 1/16W
R505	1-216-797-11	RES, CHIP	10 5% 1/16W	R660	1-249-389-11	CARBON	4.7 5% 1/4W
R506	1-216-857-11	RES, CHIP	1M 5% 1/16W	R661	1-216-825-11	RES, CHIP	2.2K 5% 1/16W
R507	1-216-857-11	RES, CHIP	1M 5% 1/16W	R662	1-216-829-11	RES, CHIP	4.7K 5% 1/16W
R508 $\Delta$	1-249-414-11	CARBON	560 5% 1/4W	R663	1-216-833-91	RES, CHIP	10K 5% 1/16W
R509	1-216-864-11	SHORT	0	R664	1-216-829-11	RES, CHIP	4.7K 5% 1/16W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R670	1-216-833-91	RES, CHIP	10K	5%	1/16W		
R671	1-216-833-91	RES, CHIP	10K	5%	1/16W		
R672	1-216-837-11	RES, CHIP	22K	5%	1/16W		
R673	1-216-833-91	RES, CHIP	10K	5%	1/16W		
R690	1-216-837-11	RES, CHIP	22K	5%	1/16W		
R691	1-216-833-91	RES, CHIP	10K	5%	1/16W		
R692	1-216-836-11	RES, CHIP	18K	5%	1/16W		
R693	1-216-829-11	RES, CHIP	4.7K	5%	1/16W		
R694	1-216-821-11	RES, CHIP	1K	5%	1/16W		
R700	1-216-313-00	RES, CHIP	8.2	5%	1/10W		
R800	1-216-833-91	RES, CHIP	10K	5%	1/16W		
	(SAT-A55 ONLY)						
R801	1-216-821-11	RES, CHIP	1K	5%	1/16W		
	(SAT-A55 ONLY)						
R802	1-216-821-11	RES, CHIP	1K	5%	1/16W		
	(SAT-A55 ONLY)						
R809	1-216-845-11	RES, CHIP	100K	5%	1/16W		
R810	1-216-845-11	RES, CHIP	100K	5%	1/16W		
R811	1-216-825-11	RES, CHIP	2.2K	5%	1/16W		
R815	1-216-813-11	RES, CHIP	220	5%	1/16W		
R820	1-216-842-11	RES, CHIP	56K	5%	1/16W		
R821	1-216-842-11	RES, CHIP	56K	5%	1/16W		
R822	1-216-826-11	RES, CHIP	2.7K	5%	1/16W		
R823	1-216-826-11	RES, CHIP	2.7K	5%	1/16W		
R826	1-216-835-11	RES, CHIP	15K	5%	1/16W		
R827	1-216-835-11	RES, CHIP	15K	5%	1/16W		
R828	1-218-725-11	RES, CHIP	24K	5%	1/16W		
R829	1-218-725-11	RES, CHIP	24K	5%	1/16W		
R850	1-216-845-11	RES, CHIP	100K	5%	1/16W		
R851	1-216-835-11	RES, CHIP	15K	5%	1/16W		
R853	1-216-845-11	RES, CHIP	100K	5%	1/16W		
R854	1-216-813-11	RES, CHIP	220	5%	1/16W		
R855	1-216-833-91	RES, CHIP	10K	5%	1/16W		
R856	1-216-864-11	SHORT	0				
R857	1-216-809-11	RES, CHIP	100	5%	1/16W		
R858	1-216-809-11	RES, CHIP	100	5%	1/16W		
R901	1-216-833-91	RES, CHIP	10K	5%	1/16W		
	(SAT-A55 ONLY)						
R902	1-216-833-91	RES, CHIP	10K	5%	1/16W		
	(SAT-A55 ONLY)						
R903	1-216-864-11	SHORT	0				
	(SAT-A55 ONLY)						
R904	1-216-833-91	RES, CHIP	10K	5%	1/16W		
	(SAT-A55 ONLY)						
R905	1-216-829-11	RES, CHIP	4.7K	5%	1/16W		
	(SAT-A55 ONLY)						
R906	1-216-864-11	SHORT	0				
	(SAT-A55 ONLY)						
R912	1-216-833-91	RES, CHIP	10K	5%	1/16W		
	(SAT-A55 ONLY)						
R918	1-216-833-91	RES, CHIP	10K	5%	1/16W		
	(SAT-A55 ONLY)						
R919	1-216-829-11	RES, CHIP	4.7K	5%	1/16W		
	(SAT-A55 ONLY)						
R970	1-216-864-11	SHORT	0				
R975	1-216-864-11	SHORT	0				
<b><u>CHIP, NETWORK</u></b>							
RB100	1-239-409-11	RES, CHIP NETWORK					47
RB101	1-239-409-11	RES, CHIP NETWORK					47
RB102	1-239-409-11	RES, CHIP NETWORK					47
RB103	1-239-409-11	RES, CHIP NETWORK					47
RB104	1-239-409-11	RES, CHIP NETWORK					47
RB105	1-239-409-11	RES, CHIP NETWORK					47
RB106	1-239-409-11	RES, CHIP NETWORK					47
RB107	1-239-409-11	RES, CHIP NETWORK					47
RB108	1-239-409-11	RES, CHIP NETWORK					47
RB110	1-236-908-11	RES, CHIP NETWORK					10K
RB120	1-236-908-11	RES, CHIP NETWORK					10K
RB121	1-236-908-11	RES, CHIP NETWORK					10K
RB151	1-239-409-11	RES, CHIP NETWORK					47
RB152	1-239-409-11	RES, CHIP NETWORK					47
RB190	1-236-908-11	RES, CHIP NETWORK					10K
RB191	1-239-409-11	RES, CHIP NETWORK					47
	(SAT-B55 ONLY)						
RB550	1-236-908-11	RES, CHIP NETWORK					10K
RB800	1-216-182-00	RES, CHIP NETWORK					220
RB910	1-239-409-11	RES, CHIP NETWORK					47
	(SAT-A55 ONLY)						
<b><u>MODULATOR</u></b>							
RF300	1-473-156-11	MODULATOR, RF					
<b><u>SWITCH</u></b>							
S600	1-692-431-21	SWITCH, TACTILE					
<b><u>TRANSFORMER</u></b>							
T510	$\Delta$ 1-427-947-11	TRANSFORMER, MODEM					
T601	$\Delta$ 1-411-672-11	FILTER, LINE					
T620	$\Delta$ 1-431-646-21	TRANSFORMER, CONVERTER (SRT)					



The components identified by shading and  $\Delta$  mark are critical for safety. Replace only with part no. specified.



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
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**TUNER**

TU201	$\Delta$ 8-598-524-00	MODULE, INTERFACE	DQS-DA101F
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**VARISTOR**

VDR601	$\Delta$ 1-801-074-41	VARISTOR	ERZV10D271
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**CRYSTAL**

X190	1-760-626-11	VIBRATOR, CRYSTAL	
X500	1-760-624-11	VIBRATOR, CRYSTAL	
X520	1-577-082-11	VIBRATOR, CERAMIC CHIP	
X850	1-767-911-21	CRYSTAL VIBRATOR	

\* A-1372-783-A HB BOARD, COMPLETE

**CONNECTOR**

CN001	1-568-852-11	PIN, CONNECTOR (PC BOARD)	9P
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**SWITCH**

S001	1-572-198-11	SWITCH, KEYBOARD	
S002	1-572-198-11	SWITCH, KEYBOARD	
S003	1-572-198-11	SWITCH, KEYBOARD	
S004	1-572-198-11	SWITCH, KEYBOARD	
S005	1-572-198-11	SWITCH, KEYBOARD	

S006	1-572-198-11	SWITCH, KEYBOARD	
S007	1-572-198-11	SWITCH, KEYBOARD	

\* A-1391-023-A SC BOARD, COMPLETE

**CAPACITOR**

C950	1-163-038-91	CERAMIC CHIP	0.1 $\mu$ F	25V
C951	1-164-005-11	CERAMIC CHIP	0.47 $\mu$ F	25V
C952	1-163-231-11	CERAMIC CHIP	15pF	5% 50V
C953	1-164-005-11	CERAMIC CHIP	0.47 $\mu$ F	25V
C954	1-164-005-11	CERAMIC CHIP	0.47 $\mu$ F	25V

**CONNECTOR**

CN950	1-785-558-11	CONNECTOR, SMART CARD	
CN951	1-568-852-11	PIN,CONNECTOR (PC BOARD)	9P

**IC**

IC950	8-759-525-10	IC TC7SET08F(TE85L)	
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**CHIP CONDUCTOR**

JR951	1-216-296-91	SHORT	0
JR952	1-216-296-91	SHORT	0

**RESISTOR**

R680	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R682	1-216-073-00	RES, CHIP	10K	5%	1/10W
R950	1-216-027-00	RES, CHIP	120	5%	1/10W
R952	1-216-029-00	RES, CHIP	150	5%	1/10W
R954	1-216-073-00	RES, CHIP	10K	5%	1/10W
R956	1-216-033-00	RES, CHIP	220	5%	1/10W
R958	1-216-295-91	SHORT	0		
R959	1-216-295-91	SHORT	0		

**ACCESSORIES AND PACKING MATERIALS**

* 4-060-766-01	CUSHION, LEFT
* 4-060-767-02	CUSHION, RIGHT
* 4-075-056-01	CARTON, INDIVIDUAL
1-790-131-11	CORD SET, POWER SUPPLY
1-558-226-11	CORD, CONNECTION (COAXIAL)
1-751-271-12	CORD, CONNECTION (AV)
1-769-758-11	CABLE, MODULAR (WITH PLUG)
1-782-576-11	CORD, CONNECTION (S-VIDEO) (SAT-A55 only)
* 1-575-335-21	CORD, CONNECTION
1-751-498-21	CORD, CONNECTION (SAT-A55 only)
1-754-022-11	ANTENNA, RF REMOTE (SAT-A55 only)
1-790-953-11	IR BLASTER (VCR CONTROLLER)
4-075-080-21	MANUAL, INSTRUCTION

**REMOTE COMMANDER****SAT-A55 ONLY**

1-418-609-11	REMOTE COMMANDER (RM-Y802)
4-978-977-01	BATTERY COVER FOR RM-Y802

**SAT-B55 ONLY**

1-475-342-11	REMOTE COMMANDER (RM-Y139)
9-973-375-01	BATTERY COVER FOR RM-Y139





